REGD Nos. D—(C) 627 MH—BY/South-497
R. N. 6175/60

Rs. 10.00

Reader's Digest

March 1984

HOW TO HANDLE PRESSURE

PAGE 95

WOMEN: THE ANIMALS OF KHOMEINI'S IRAN

PAGE 175

ETERNAL SANDALWOOD

PAGE 57

Artificial Skin: From Concept to Creation . . . 45
The Storm Nobody Knew Was Coming 50
Life's Like That 55
Eternal Sandalwood 57
The Greatest Poverty Programme of All 62
Our Moscow Wedding Day 66
The Neutron: Nature's Astonishing Architect . 71
Humour in Uniform 75
The Gold Necklace 77
The Night Owls 80
A Pullover for Sammy 87
How to Handle Pressure. 95
When the Circus Comes to Town 106
In the Steps of the Usurper 113
Towards More Picturesque Speech 119
Vietnam and the Ironies of "Peace" 120
Five Tiny Lives 131
Laughter, the Best Medicine 145
Auguste Piccard—Professor of High Adventure 151
Women: The Animals of Khomeini's Iran . . . 175

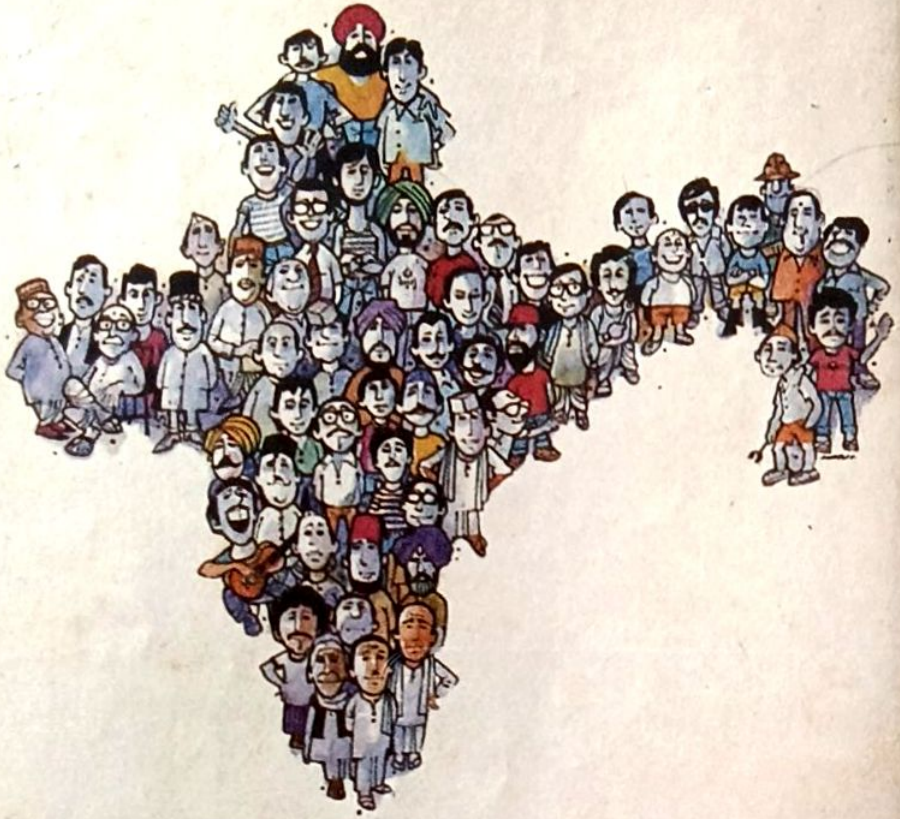
Special Features

I AM THE NILE. . . . *by Christopher Lucas* 184
DETROIT FACES THE RISING SUN *by David Reed* 203

It Pays to Enrich Your Word Power, 3; Man's Best Friend... And More, 7; Points to Ponder, 17; How Jealous Are You? 23; Sweet Truths About Sugar, 32; "And The Winner Is ..." 39

World's most read magazine
Over 31 million copies in 17 languages bought monthly
31st year in India. February 1984: 238,106 copies printed

SUBSCRIBER COPY—NOT FOR RESALE



ARTIG 4198

The largest joint family

Owners of Bajaj vehicles really know what 'after-sales service' means.

The security and comfort of knowing that there is a joint family of dealers and service centres in over two hundred and sixty towns, covering every part of the country. The widest two- and three-wheeler service network in India.

Fully equipped with factory trained service personnel, stocks of genuine spare parts, special tools, detailed service manuals, and years of experience.

The way they look after the family business is exceptional. Our dealers attend to warranty claims promptly. As you'd expect from Bajaj Auto.

They do such a marvellous job because they know that there is at least one thing more important in this world than money.

The family name.

bajaj auto ltd

Value for money, for years

Quotable Quotes

Progress is not created by contented people. —F.T.

If you worry about missing the boat—remember the *Titanic*. —S.B.

The wise individual doesn't get too attached to any of life's pleasures, knowing that wonderful science is hard at work proving it's bad for him.

Drive as if you owned the other car.

An optimist is the human personification of spring. —S.J.B.

I don't want to achieve immortality through my work. I want to achieve immortality through not dying.
—Woody Allen, quoted by Eric Lax in *On Being Funny: Woody Allen and Comedy*

The person who knows how will always have a job. But the person who knows why will be his boss. —C. C. W.

The more obligations we accept that are self-imposed, the freer we are. —J.W.S.

◆

THIS MONTH'S COVER

"Folk Dancer"

by Vinay Trivedi

Photographed by N.T. Royan

Reader's Digest
Vol. 124 No. 743 March 1984

Founders:
DeWitt Wallace and Lila Acheson Wallace

Ashok Mahadevan (*Editor-in-Chief*)
V. Gangadhar (*Assistant Editor*)
Rati Messman (*Associate Editor*)
Daphne De Lima (*Researcher*)

Advertising
Chandran Tharoor (*Advertising Director*)
Regional Managers:
Vivian D'Souza (*Delhi*);
P.S. Madhavan (*Madras*); Ranjan Bakshi (*Calcutta*)

V.L. Ukidave (*Financial Controller*)
Sanjay Johri (*Circulation Manager*)
Satish Kumar (*Marketing Executive*)

Subscription: Rs. 120.00 a year plus delivery charges
Enquiries: RDI Print & Publishing Pvt Ltd.
Mehra House, 250-C New Cross Road,
Worli, Bombay-400025.
When notifying a change of address, please enclose the addressed portion of your Reader's Digest wrapper. With subscription queries, please enclose the wrapper or a bill.

Indian Reader's Digest is published by
RDI PRINT & PUBLISHING PRIVATE LIMITED
under a licence granted by the Reader's Digest Association, Inc., the proprietor of the name and trademark Reader's Digest.

Registered office: Orient House,
Mangalore Street, Ballard Estate, Bombay-400038
Anil S. Goré (*Publisher and Managing Director*)

Reader's Digest Association, Inc., (USA).
Edward T. Thompson, *Editor-in-Chief*
Alain de Lyrot, *Executive Editor, International Editions*
John A. O'Hara, *President*

The Reader's Digest is published in: ENGLISH (Indian, British, US, Canadian, Australian, South African, New Zealand, and Asian Editions); SPANISH (Latin American and Iberian Editions); PORTUGUESE (Portuguese and Brazilian Editions); SWEDISH; FINNISH; NORWEGIAN; DANISH; JAPANESE; FRENCH (Canadian, Belgian, French and Swiss Editions); GERMAN (German and Swiss Editions); ITALIAN; DUTCH (Dutch and Belgian Editions); CHINESE; ARABIC; KOREAN; HINDI; GREEK

© 1984 RDI Print & Publishing Private Ltd. All rights reserved throughout the world.
Reproduction in any manner, in whole or part, in English or other languages, prohibited.

PUBLISHED BY RDI Print & Publishing PRIVATE LTD., AT ORIENT HOUSE, MANGALORE STREET, BALLARD ESTATE BOMBAY 400038; S-507 GREATER KAILASH-II, NEW DELHI 110048, AND PRINTED BY ANIL S. GORÉ AT THOMSON PRESS (INDIA) LIMITED, FARIDABAD, HARYANA

Mummy, my doll's hurt. Can't you set her arm right?

Setting right a doll's arm could be child's play. But if you were to injure an arm or a limb through accident, the hurt could be more than physical. It could be financially painful.

That's why you need the protection of insurance. From National. The people who know how to cover you best. And who have a range of policies for accident, fire and burglary.

Yes, attend to your daughter's little doll but also take care of yourself.

Personal Accidents. They hurt less when you're insured.

National Insurance
Dedicated to a growing sense of security

NIC/CAS-1/84

For details, please contact any of our Divisional or Branch offices

National Insurance Company Limited
3, Middleton Street, Calcutta 700 071
(A subsidiary of General Insurance Corporation of India)

IT PAYS TO ENRICH YOUR WORD POWER

BY NED HALLEY®

ALTHOUGH Henry Fowler died 50 years ago, his *Modern English Usage* is still an indispensable reference book for all who value the correct use of the language. Here are 20 words on which Fowler's classic work gives guidance. Tick the word or phrase you believe is *nearest in meaning* to the key word. Answers are on the next page.

(1) **affinity**—A: kindness. B: prediction. C: relationship. D: certainty.

(2) **aftermath** (AHF ter math, AHF ter mahth)—A: unpleasant consequence. B: climax. C: rest period. D: calamity.

(3) **bereft** (ber EFT)—A: deprived. B: borrowed. C: insane. D: frenzied.

(4) **complacency** (kom PLAY sen see)—A: ignorance. B: grievance. C: willingness to please. D: self-satisfaction.

(5) **demean** (dī MEEN)— A: to pretend. B: lower. C: insist. D: imply.

(6) **egregious** (I GREE jus)—A: shocking. B: shy. C: preliminary. D: self-centred.

(7) **eponymous** (ip ON I mus)— A: exactly similar. B: in disguise. C: short-lived. D: named after a person.

(8) **fortuitous** (for TEW it us)—A: rich. B: accidental. C: favourable. D: contented.

(9) **idiosyncrasy** (id ee oh SIN kra see)—A: futile gesture. B: authority. C: sameness. D: individuality.

(10) **innate** (in ATE, INN ate)—A: brief. B: inborn. C: empty. D: first.

(11) **jetsam**—A: goods thrown overboard. B: vapour trail. C: wealthy élite. D: urgent signal.

(12) **lampoon** (lam POON)—A: expression of grief. B: satirical article. C: indiscretion. D: heated argument.

(13) **meander** (mee AN der)—A: to complain. B: speculate. C: discuss. D: wander.

(14) **mendacity** (men DAS it ee)—A: untruthfulness. B: poverty. C: intelligence. D: advice.

(15) **oblivious** (ob LIV ee us)—A: uneducated. B: offensive. C: forgetful. D: indirect.

(16) **plausible** (PLAW zī b'l)—A: attractive. B: in the future. C: light-hearted. D: persuasive.

(17) **prolific** (pro LIF ik)—A: skilled. B: highly productive. C: wasteful. D: tediously wordy.

(18) **straiten**—A: to regulate. B: reform. C: intimidate. D: restrict.

(19) **supine** (SOO pine)—A: very valuable. B: flexible. C: lying face upwards. D: suspicious.

(20) **venial** (VEE nee al)—A: excusable. B: mercenary. C: thin. D: degrading.

Answers to "IT PAYS TO ENRICH YOUR WORD POWER"

(1) **affinity**—C: Relationship between two mutually benefiting parties; as, the *affinity* between Britain and the USA. Latin *affinis* (bordering on).

(2) **aftermath**—A: Unpleasant consequence; as, war and its *aftermath*. Literally, grass growing after first growth has been mown. Old English *æfter* and *mæth* (after mowing).

(3) **bereft**—A: Deprived. "Are you *bereft* of your senses?" Old English *berēafian* (to bereave).

(4) **complacency**—D: Self-satisfaction. "Britain's unemployment figures leave no room for *complacency*." Latin *com-* (with) and *placere* (to please).

(5) **demean**—B: To lower or debase. "I would not *demean* myself to speak to him." Latin *de* (from) and Old English *mænan* (to signify).

(6) **egregious**—A: Shocking; outstandingly bad; as, an *egregious* example of incapacity. Latin *e grege* (out of the flock).

(7) **eponymous**—D: Named after a person; as the words boycott (after Captain C. C. Boycott), guillotine (Dr J. I. Guillotin) and sandwich (the fourth Earl). Greek *epi* (upon) and *onoma* (name).

(8) **fortuitous**—B: Accidental; as, a *fortuitous* encounter. Latin *forte* (by chance).

(9) **idiosyncrasy**—D: Individuality; the mixture of characteristics that makes each of us unique. Greek *idios* (own), *sun* (together) and *krasis* (mixture).

(10) **innate**—B: Inborn. "Courage is *innate* in the race." Latin *in* and *natus* (born).

(11) **jetsam**—A: Goods thrown overboard to lighten a ship, and subsequently washed ashore. Latin *jactare* (to throw).

(12) **lampoon**—B: Satirical article written to abuse an individual. Possibly from French *lampons* (let us drink).

(13) **meander**—D: To wander or follow a winding course; as, a *meandering* river. Greek *Maiandros*, a winding river in Phrygia.

(14) **mendacity**—A: Untruthfulness; as, a criminal's habitual *mendacity*. Latin *mendax* (untruthful).

(15) **oblivious**—C: Forgetful; no longer aware; as, to become *oblivious* of worldly cares. Latin *oblivisci* (to forget).

(16) **plausible**—D: Persuasive, but deceptively so; as, a *plausible* liar. Latin *plaudere* (to applaud).

(17) **prolific**—B: Highly productive; as, a *prolific* writer. Latin *proles* (offspring).

(18) **straiten**—D: To restrict in range or scope; as, *straitened* circumstances. Latin *strictus* (tight).

(19) **supine**—C: Lying face upwards; as, the *supine* figures of sunbathers. Latin *supinus* (on the back).

(20) **venial**—A: Excusable; not very wrong; as, the *venial* fault of absentmindedness. Latin *venia* (forgiveness).

Vocabulary Ratings

16 or more correct	excellent
15–12 correct	good
11–9 correct	fair

Stop bad breath... Fight tooth decay

Colgate DENTAL CREAM
Colgate
STOPS BA

Colgate's trusted formula works to give you clean, fresh breath... strong, healthy teeth every time you brush.

Here's how:

Odour- and decay-causing bacteria grow in food particles trapped between your teeth.

Colgate's unique active foam reaches deep to remove dangerous food particles and bacteria.

Result: Fresh-breath confidence, protection against decay, strong healthy teeth.

Remember to brush with Colgate Dental Cream after every meal: Stop bad breath... fight tooth decay.

You'll love its fresh minty taste!

GK&E.B82.86

The All-Weather Protector

SUPER SNOWCEM*

Waterproof Cement Paint

Super Snowcem is a waterproof cement paint based on white portland cement. It forms a rock-hard durable surface which helps keep out rain and damp.
Its smooth matt finish adds value to any building. It is ideal for residential houses, offices, hotels, factories, cinemas etc.
Super Snowcem is economical, durable, washable. It is available in a wide range of colours.

Manufactured by:
Snowcem India Ltd.
A Killick Subsidiary
Killick House, Charanjit Rai Marg,
Post Box 109, Bombay-400001
Sole Selling Agents
KILLICK NIXON LTD.
Bombay, Ahmedabad, Bangalore,
Calcutta, Delhi, Madras,
Cochin, Kanpur, Secunderabad.

***Manufactured under licence from Blue Circle Industries Limited, London.**

SS/A/84

Sometimes the best medicine isn't a drug or a regimen of exercise but the special chemistry that takes place between humans and animal companions

Man's Best Friend... And More

By Patricia Curtis

Patient—and friend—at a health centre for the elderly

In a Chicago health centre, an elderly patient in a wheelchair brightens dramatically as a fuzzy puppy is placed in his lap. At a children's hospital across town, a little boy in traction giggles and plays with a kitten that has been brought to his bed. At a riding arena in Michigan, an 11-year-old girl, her legs in braces, is helped on to a gentle horse and rides off wearing a big smile.

What is going on? The common denominator is the animals, companion animals used as adjuncts in therapy. Recent research suggests that animals may be good for all of us in ways we are only beginning to discover.

The first systematic use of animals for handicapped persons was guide dogs for the blind developed in Germany early in this century. More recently dogs are being trained to aid the deaf. Some

© 1981 PATRICIA CURTIS CONDENSED FROM SMITHSONIAN (JULY 1981)
PHOTOS: EUGENE RICHARDS MAGNUM

Ω
OMEGA
T
TISSOT

OMEGA
Constellation
QUARTZ

Arthur Reid Pvt. Ltd.
G-55 Connaught Place
New Delhi-110 001.
Telephone: 323147

2/1 Loudon Street
Calcutta-700 016.

Sole Party
exclusively authorised to
operate and maintain
within the territory of India
a service organisation for
Omega and Tissot
watches.

Please write to New Delhi
for your nearest service arrangements.

dw/ar-3

30 years ago, in England especially, word began to spread that riding horses offered more than just recreation to physically disabled, retarded or emotionally damaged people. Then, spontaneously, here and there in Europe and North America, animals began to be used in therapeutic situations for the emotionally and mentally handicapped.

A dog named Skeezer lived at the University of Michigan Children's Psychiatric Hospital, not as a mascot but as a valued contributor to the children's therapy. Doctors discovered that animals could act as catalysts in reaching withdrawn persons, and such terms as "pet-facilitated psychotherapy" and "pet therapy" were coined.

To understand how companion animals may be beneficial, come and see firsthand some of the ways they prove themselves therapeutic.

This morning at the Cheff Centre for the Handicapped in Michigan, several physically disabled children are on horseback, some held in the saddle by adults. At instructor Kelly Love's command, volunteers lead the horses at a trot, with the children bobbing in the saddles. The horses are also led over poles laid on the ground; the horses' slightly rolling motion as they step helps improve the children's balance.

Casual or formal - Emerald suitings and
Starlite shirtings drape elegantly.
Skillfully blended in pleasant shades
to meet discriminating tastes.

DAVANGERE
sets the trend with beautiful blends.

THE DAVANGERE COTTON MILLS LTD
Hanumanthappa Buildings
Chitradurga Road
DAVANGERE 577 002

Show Rooms at:
Cauvery Bhavan Bangalore 560 009
Dajibanpet Hubli 580 020
Chitradurga Road DAVANGERE 577 002

THOMAS/8302-B/ENG

SPECIAL CONCESSION FOR GOVERNMENT, PUBLIC-SECTOR EMPLOYEES, TEACHERS AND STUDENTS

ACCOMODATION AT NEW DELHI

Clean and comfortable rooms amidst lawns and gardens. Centrally located close to Railway Station and Connaught Place. Restaurant (approved by Department of Tourism, Govt. of India) hot-showers, sight-seeing, money-changing,laundry and many other facilities.

"Having, stayed at Tourist Camp five orsix times,we feel that this is amongst the best places to stay anywhere — everything considered" A Robbins, San Francisco.

Tariff : Rs 20/- for single and Rs 32/- for double room; 25% Rebate for Government, public-sector employees, teachers, students & those appearing for examinations and interviews and Rs 8/- per person for student- groups (maximum concession for three days only)

For information and reservation contact:

TOURIST CAMP

Opp Irwin Hospital, J.L. Nehru
Marg, New Delhi - 110002
Phone : 272898

jac

Then the horses stand perfectly still while the mounted youngsters do stretching exercises.

Love watches a vigorous little girl and says, "She suffered brain damage in a car accident and had to be held upright when she first came here. Look at her now."

"Riding stimulates muscles that can't develop in wheelchairs," explains Cheff's director, Lida McCowan. It has even been known to make corrective surgery unnecessary, as in the case of people with cerebral palsy, who characteristically suffer from tightness of the thigh muscles. Sitting astride a horse subjects those muscles to stretching.

Adds McCowan, "And the emotional pluses are phenomenal—when they're on horseback, these kids are equal to anybody. That means a lot."

Today there are about 225 accredited therapeutic riding centres in the United States and Canada. Cheff, the oldest, serves some 230 disabled people of all ages, free of charge, and offers courses to student instructors from several countries.

"You must have trained people doing this work," McCowan stresses. "You can pull someone's hip out of joint if you don't know what you're doing."

McCowan tells us about the time a child fell under a horse: "The horse froze instantly with his foot lifted. He stood there the whole 15 seconds it took us to reach the child. I swear the horses understand that these people need special care."

A handicapped child on horseback—and on top of the world

WE ARE in Chicago, at the Bowman Health Centre for the elderly. The therapy room is filled with people in wheelchairs or using walkers. We are with staff and volunteers from the Anti-Cruelty Society (ACS) on their regular visit. Our arms are filled with puppies for the patients to hold.

The recreation therapist tells us of an elderly stroke victim who could not speak and had withdrawn into apathy: "Someone put a puppy in her lap. Suddenly she smiled and began to pet the dog. When it came time to take the puppy from her, she wept. When the pets came again, she was waiting in the hall in her wheelchair."

"As our visits continued," adds Mary McLaughlin, original co-ordinator of the ACS's pet-therapy programme, "she began to wheel around the floors and show puppies to other patients. She began to interact with people again."

This evening we go to Children's Memorial Hospital with more pets. "When we first began bringing pets here, some doctors and nurses disapproved," an ACS volunteer tells us. "They envisioned mess, noise, germs. Now they welcome us because the pets do the kids so much good."

A child in pigtails sees us in the hall. Her eyes grow wide. The girl cannot speak and lacks motor control of her arms, but she manages to draw the volunteer's hand close to her face so she can nuzzle a kitten. A quadriplegic boy of about 12 is asked if he'd like to see a dog. "Yes," he whispers. The pup's warm body is held against his cheek. He smiles.

A DAY later, in Ohio, we wait in the gatehouse of the maximum-security Lima State Hospital for the Criminally Insane. Social worker David Lee leads us to his ward. Everywhere there are fish tanks, birds on perches, hamsters and gerbils in cages.

"All this started eight and a half years ago when a patient found an injured wild bird and nursed it," Lee says. "I noticed the men got involved with it, and that gave me an idea. I got a fish tank and two parakeets as an experiment. Interest spread. The effect on patients has been dramatic. The animals help establish trust and communication."

A big green parrot named Roscoe sits on his owner's shoulder, exchanging kisses. "When I got him, I was pretty depressed," says this patient. "Now he's my friend. Animals don't care where you're coming from. They like you anyway."

NONE OF what we have seen would surprise Aaron Katcher, associate professor of psychiatry at the University of Pennsylvania who participated in research into the long-term survival rate of heart-attack victims. Those who had pets were found to fare better than those who did not. Katcher and his associates decided to investigate further: the benefits of animals to the handicapped had been established, but are pets good for all of us?

Interesting findings are emerging. For instance, most people with pets talk to them. And while there is a rise in blood-pressure when people talk to each other, there is no rise when they talk to their pets. This suggests that animal companionship—uncritical, non-judgemental—has soothing results.

Another point: men seem to fondle their pets as much as women do—possibly because they find it one of the few socially acceptable forms of caressing available to them. Such findings will not surprise those of us who are close to our pets, but will perhaps give credibility to what many of us know in our bones.

* * *

Too Confusing

THE DOCTOR repeated his instructions: "The yellow pills are for your stomach, the red ones are for your swollen liver, and the white ones are for your heart. Have you got that straight?"

"It's all clear to me. I only hope the pills understand where they are supposed to go."

—*Der Stern*, Germany

DO A GOOD TURN TO YOUR FRIENDS... EARN A DELIGHTFUL GIFT

CONTENTS INCLUDE

The World's First crossword
What's in a name?...
Words in circulation...
Word match ...
Word play...A to Z
Food for thought...

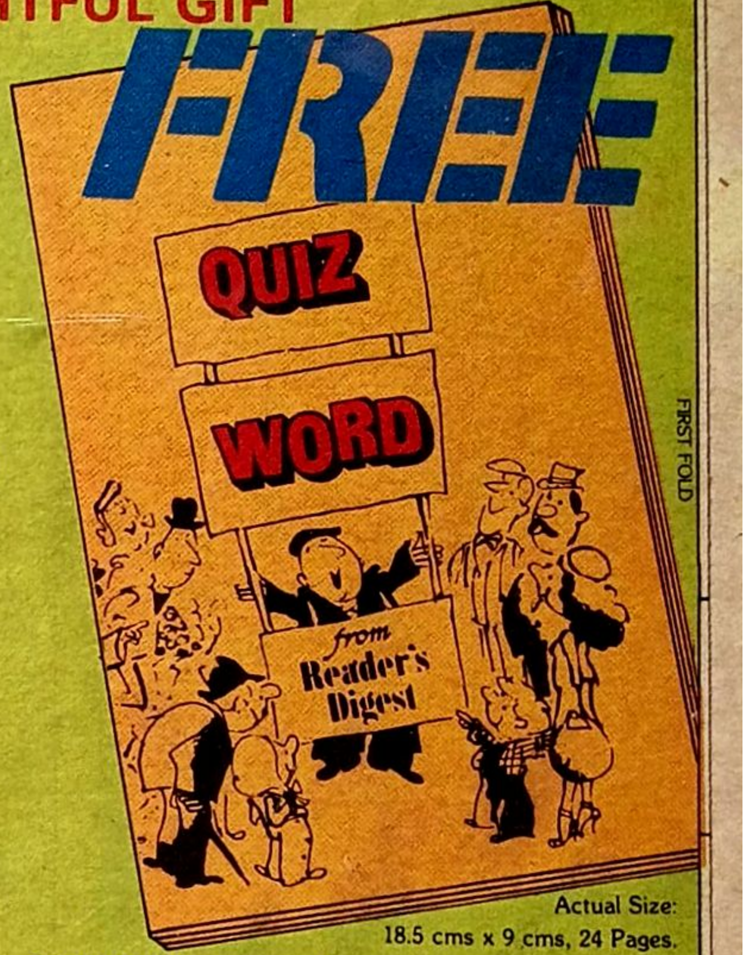
E
M
R
L
A
T
G
H
Y
N
D
C
I

WORLD TOUR

CHOOSE YOUR PARTNERS

CRICKET
BLUE-BOTTLE
DADDY-LONG-LEGS
LADYBIRD
GRASS-HOPPER
HORNET
BUTTER-FLY
FLEA

SPELLING BEE



Actual Size: 18.5 cms x 9 cms, 24 Pages.

QUIZWORD is a Reader's Digest selection of 23 scintillating PUZZLES to perplex you, TEASERS to test you, and POSERS to make you ponder with ENIGMAS, CONNUNDRUMS and BEWILDERMENTS galore.
QUIZWORD is your Gift—no contest, no purchase obligation.

Just fill in on the reverse of this post-paid self mailer and send it to us. With the names and addresses given by you, we will be able to contact your friends and inform them of the unique products and money saving discounts that they otherwise may not have heard about.

FIRST FOLD

FINAL FOLD AND THEN SEAL

A FREE GIFT FOR YOU FROM
READER'S DIGEST!
◀ DETAILS OVERLEAF

THIRD FOLD

THIRD FOLD

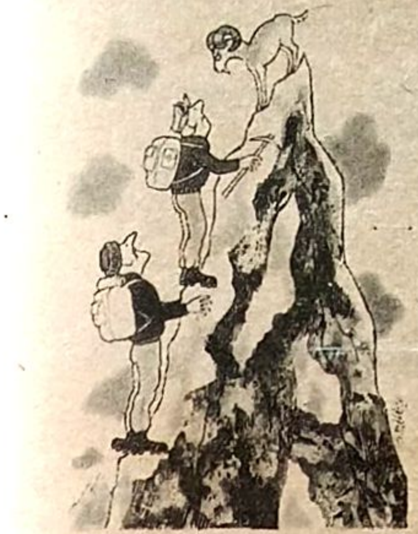
Postage will be paid by Addressee

BUSINESS REPLY ENVELOPE

No postage stamp necessary if posted in India

PERMIT NO. BY-S-113
BOMBAY G.P.O.

RDI PRINT AND PUBLISHING PRIVATE LTD.
45 Vaju Kotak Marg, BOMBAY 400 038.



Points to Ponder®

SAM KEEN, on well-tempered passion:

The value of passion, like fire, is judged finally by the amount of warmth and light it creates. Fanatics, like forest fires, burn bright but destroy all in their path that is tender and green. To be useful, fire must be confined. To live passionately, we must develop discipline; to love powerfully, we must forge bonds of commitment. Passion is inseparable from compassion. —*Self*

JAMES MICHENER, on challenge:

A ship, like a human being, moves best when it is slightly athwart the wind, when it has to keep its sails tight and attend its course. Ships, like men, do poorly when the wind is directly behind, pushing them sloppily on their way so that no care is required in steering or in the management of sails; the wind seems favourable, for it blows in the direction one is heading, but actually, it is destructive, because it induces a relaxation in tension and skill. What is needed is a wind slightly opposed to the ship, for then tension can be maintained, and juices can flow and ideas can germinate; for ships, like men, respond to challenge. —*Chesapeake*

AMERICAN author Richard Evans:

It isn't always others who enslave us. Sometimes we let circumstances enslave us; sometimes we let routine enslave us; sometimes we let things enslave us; sometimes, with weak wills, we enslave ourselves. —*Richard Evans' Quote Book*

ABRAHAM LINCOLN:

I want it said of me by those who knew me best, that I always plucked a thistle and planted a flower where I thought a flower would grow.

GENERAL Omar Bradley:

Ours is a world of nuclear giants and ethical infants. We know more about war than we know about peace, more about killing than we know about living. We have grasped the mystery of the atom and rejected the Sermon on the Mount.

WILLIAM SADLER, JR, on being lonely:

In studying countless expressions of loneliness, both from modern Americans and from other times and places, I have found some common elements. The first and most outstanding feature of loneliness is a painful feeling, sometimes experienced as a sharp ache, as in moments of grief or separation; but it can also be a dull, lingering form of stress that seems to tear a person down. Sometimes lonely feelings produce the "blues" of depression; but again, there is a difference between loneliness and depression. In the latter case, when a person is really "feeling low," he does not want to do anything. Depression corrodes motivational resources. Loneliness, by contrast, has a driving power. It sets people in motion—to go out, turn on the television, write a letter, make a phone call, or even get married.

—*Science Digest*

BRITISH playwright, novelist and critic Bernard Shaw:

I dread success. To have succeeded is to have finished one's business on earth, like the male spider who is killed by the female the moment he has succeeded in his courtship. I like a state of continual becoming, with a goal in front and not behind.

AMERICAN clergyman Henry Ward Beecher:

Young love is a flame—very pretty—often very hot and fierce, but still only light and flickering. The love of the older and disciplined heart is as coals, deep-burning, unquenchable.

PABLO PICASSO:

Everyone wants to understand art. Why not try to understand the songs of a bird? Why does one love the night, flowers, everything around one, without trying to understand them? But in the case of a painting, people have to understand. If only they would realize above all that an artist works of necessity, that he himself is only a trifling bit of the world, and that no more importance should be attached to him than to plenty of other things which please us in the world, though we can't explain them.

—*Picasso on Art*, edited by Dore Ashton

STANLEY BALDWIN, former prime minister of England, quoted these lines in the House of Commons:

The halls of fame are open wide and they are always full. Some go in by the door called "push," and some by the door called "pull."

SINGER Dinah Shore:

Trouble is part of your life, and if you don't share it, you don't give the person who loves you a chance to love you enough.

JOYCE EVANS:

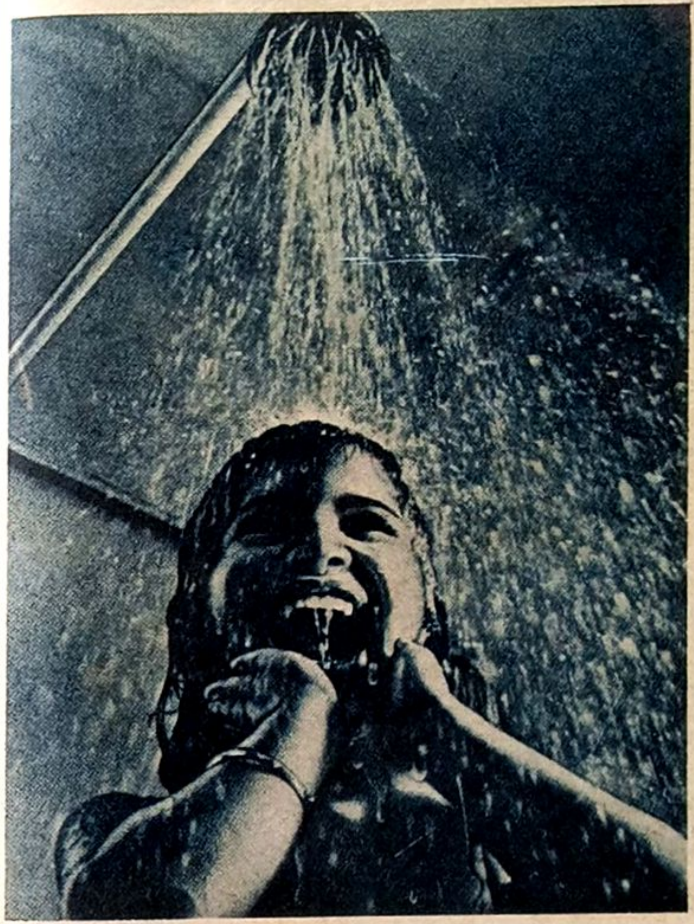
A relationship is a treasure to be cherished,
Fragile like fine china
which must be handled with care.
For, like china, once broken—even though mended so the break is hardly noticeable—
It is never the thing of beauty it was in the beginning.

SAMUEL GOMPERS, founder of the US labour movement:

Doing for people what they can and ought to do for themselves is a dangerous experiment. In the last analysis, the welfare of the workers depends upon their own initiative. Whatever is done under the guise of philanthropy or social morality which in any way lessens initiative is the greatest crime that can be committed against the toilers.

—*Eight Hours*

Refreshing water 24 hours a day...



with WASP Pumping Systems.

No matter where you live you can get water with full force from any source—underground tank, deep borewell or open well (as deep as 85 metres), lake, river, etc

Wasp has the widest range of pumps—Centrifugal, Self-Priming, Ejecto Jet Pumps, Submersible Pumps—to suit every requirement. We offer sound technical advice on how to select the right pump. We have a countrywide network of branches and dealers to give you quick and efficient service.

Ejecto
JET PUMP

POST COUPON TODAY

To
Water Supply Specialists Pvt. Ltd.
8, Ambalal Doshi Marg, Fort, Bombay 400 023.

I have a specific water problem as detailed in my accompanying letter. Please send your representative.

Name ______
Address ______

Wasp®

There is a pump for every application

Dattaram WS 299

LET'S DRIVE TO SAVE — 2

YOUR ENGINE COULD BE COSTING YOU 6% MORE IN FUEL BILLS.

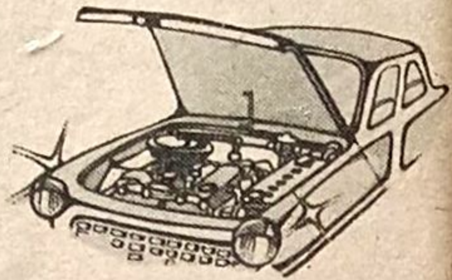
"You mean my engine is a gas guzzler? But it's running perfectly well ... there's nothing wrong with it!"

Perhaps you haven't noticed all the tell-tale signs that your engine's not in good shape.

For instance, does your engine drag? Smoke? Use too much oil?

Regular engine tune-ups save you 6% in terms of fuel and money.

KEEP YOUR ENGINE HEALTHY.

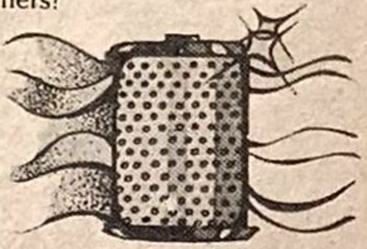


Take your car to a reputed garage and check up spark plugs, distributor contact breaker and condensor, carburettor, ignition timing and tappet settings. A delay may prove more expensive in terms of fuel than the cost of an overhaul.

CLEAN YOUR AIR FILTER REGULARLY.

Do you know...

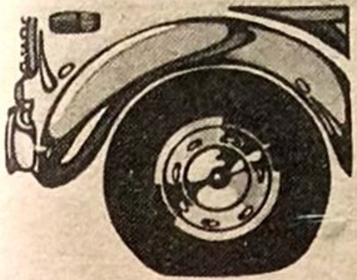
A cylinder bore wears out 45 times faster in engines without air cleaners?



Your air filter prevents dust from fouling the engine. Dust causes rapid wear of engine components and increases fuel consumption. See that your air filter is cleaned and its oil changed every time your car is serviced.

WATCH YOUR TYRE PRESSURE.

Under-inflated tyres increase rolling resistance, leading to higher petrol consumption.



A 25% decrease in tyre pressure can reduce tyre life by 25% and can cost you 5-10% more in terms of fuel. So ensure that your tyres are inflated to the recommended pressures.

USE THE RECOMMENDED GRADE OF LUBRICANTS.

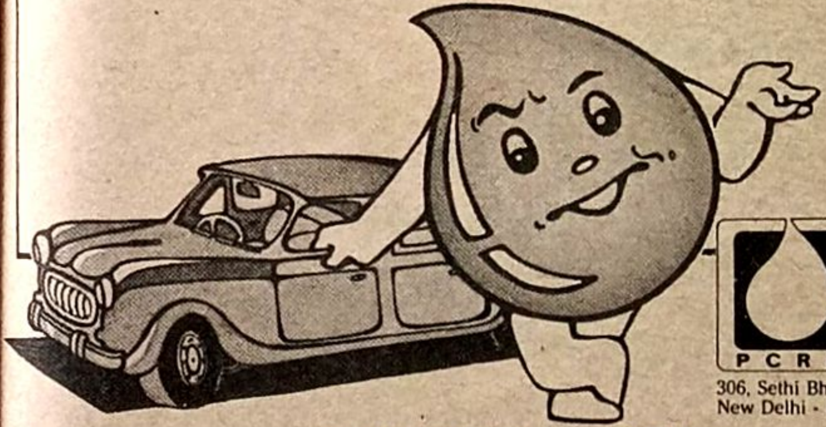
Check your car manual and the oil manufacturer's recommendations before using any grade of oil.

Engine oil that is thicker than recommended can cause a 2% increase in fuel consumption.

Get your car serviced regularly. Use only the correct grade of lubricants for the engine, gear box, rear axle, propeller shaft and wheel bearings.

Before your car becomes a candidate for Gasoholics Anonymous, start acting today. Follow these simple tips and save money and fuel. And look out for more handy hints in our series on tested fuel-saving methods.

THINK ABOUT IT.



P C R A
Petroleum
Conservation
Research
Association
306, Sethi Bhavan, 7- Rajendra Place,
New Delhi - 110 008.

SAVE PETROL.
Because oil isn't going to last forever.

HTD-PCR-8055 B

NYCIL POWDER – FOR PRICKLY HEAT
Glaxo
FREE Attractive comb with this pack
Glaxo
nycil®
PRICKLY HEAT POWDER

FREE!

Attractive Comb on purchase of this special pack.

GET nycil® FORGET PRICKLY HEAT

LIMITED STOCKS IN SELECTED MARKETS ONLY

GOOD HEALTH COMES FROM GLAXO

HTB-GLL-9936

How Jealous Are You?

By Morton Hunt

Jealousy can be an ugly emotion, born of insecurity or possessiveness. Yet it can also be a healthy response to seeing our love endangered. An American sociologist who has long studied the subject, explains: "Jealousy is protection for love, a reaction to a perceived threat to a valued relationship." But, he says, we need to ask ourselves, "Is the perceived threat real or not?"

Test your own jealousy threshold with the following quiz. For each of the situations below, decide if you would not be jealous at all, slightly jealous, somewhat jealous, or intensely jealous. Then compare your answers with those given by a panel of experts in human relations. The panelists caution that it is difficult even for experts to give firm opinions in cases where limited information is provided. Nevertheless, they hope that their views of the situations may help partners to openly discuss such problems.

1. At a party, Mrs A, an excellent dancer, spends nearly the whole evening dancing with an attractive man, obviously having a good time. Mr A, who isn't a good dancer, stays on the sidelines. If you were Mr A, how jealous would you be?

2. Mr B flirts with a pretty newcomer during a neighbourhood social gathering. Ignoring his wife, who can see them, they talk animatedly, laugh a lot and exchange deep looks. How would you feel if you were Mrs B?

3. While rummaging in the cupboard, Mrs C finds a bundle of love letters her husband has kept from a love affair predating their marriage. When asked, he explains, "It's just part of my past, like my college album." How would you react in Mrs C's place?

4. Mrs D's old boy-friend is

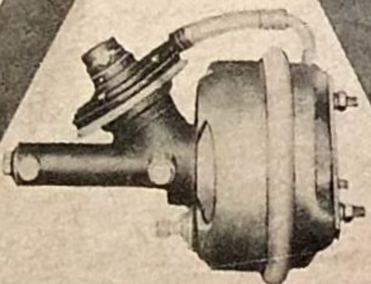
coming to town and has written to her to suggest they meet somewhere for a drink. She accepts, saying to Mr D, "After all, we're old friends." If you were Mr D, would you be jealous?

5. Mr E had a brief extramarital affair that caused a serious marital conflict. It's long over and forgiven, but he still has to see the other woman for business reasons, and they occasionally choose to discuss business over lunch. How would you feel about that if you were Mrs E?

6. Mrs F sometimes talks at length on the phone to a lifelong male friend about personal matters: mutual friends, family problems, career. Though they have never had a sexual relationship, would you be jealous if you were Mr F?

7. Mr G has a son and daughter by a previous marriage, and meets with his ex-wife to discuss the children. Sometimes they prolong a meeting to talk about old friends and other topics of mutual interest. If you were Mrs G, how jealous would you be?

8. At a large Christmas party, Mr H sees his wife, in a dimly lit bedroom, warmly kissing a man. She explains that it was only a passing impulse and was never intended to lead to anything more. If you were the husband, how would you be affected?



for your safety fit in your car today

ELGI
POWER BRAKES

ELGI POWER BRAKE IS AN ADDED ADVANTAGE TO YOUR CAR.

ELGI Power Brake Derives power from the manifold vacuum.
This power reduces the effort on the brake pedal.
Boosting action of the power brake will be proportion to the pedal load.
The power assistance thus given is within controllable limits.
All this without any extra petrol consumption- unbelievable, isn't it?

Manufacturers:
Elgi Equipments Ltd,
INDIA HOUSE TRICHY ROAD
COIMBATORE 641018

Stocks are also available at L.G. Balakrishnan & Bros. Ltd., at their Regional Offices in Bombay, Delhi, Calcutta

VSKEE 1197

9. Mr I confesses to his wife that while he was away on a long business trip, he fell into conversation with a woman in a restaurant and, having had no sex for weeks, wound up in bed with her. He says it was a one-time, purely physical thing, with no emotional involvement. If you were Mrs I, how would you feel?

10. Mr J discovers that his wife has been having an affair for months with another man. When he confronts her, she admits it but swears that her love for him hasn't diminished. She says that she needs and loves both him and the other man in different ways, and begs him to let things continue as they are. If you were Mr J, how would you react?

Answers

1. Most panelists thought that Mr A has good reason to feel slightly—or even somewhat—jealous. Mrs A's dancing with the other man throughout the evening makes Mr A feel excluded, and looks so to others. But what Mr A does with his jealousy is crucial: either bottling it up or raging at his wife is likely to do only harm. For jealousy to be protective, it should be put to constructive use. Mr A should discuss his feelings with his wife.

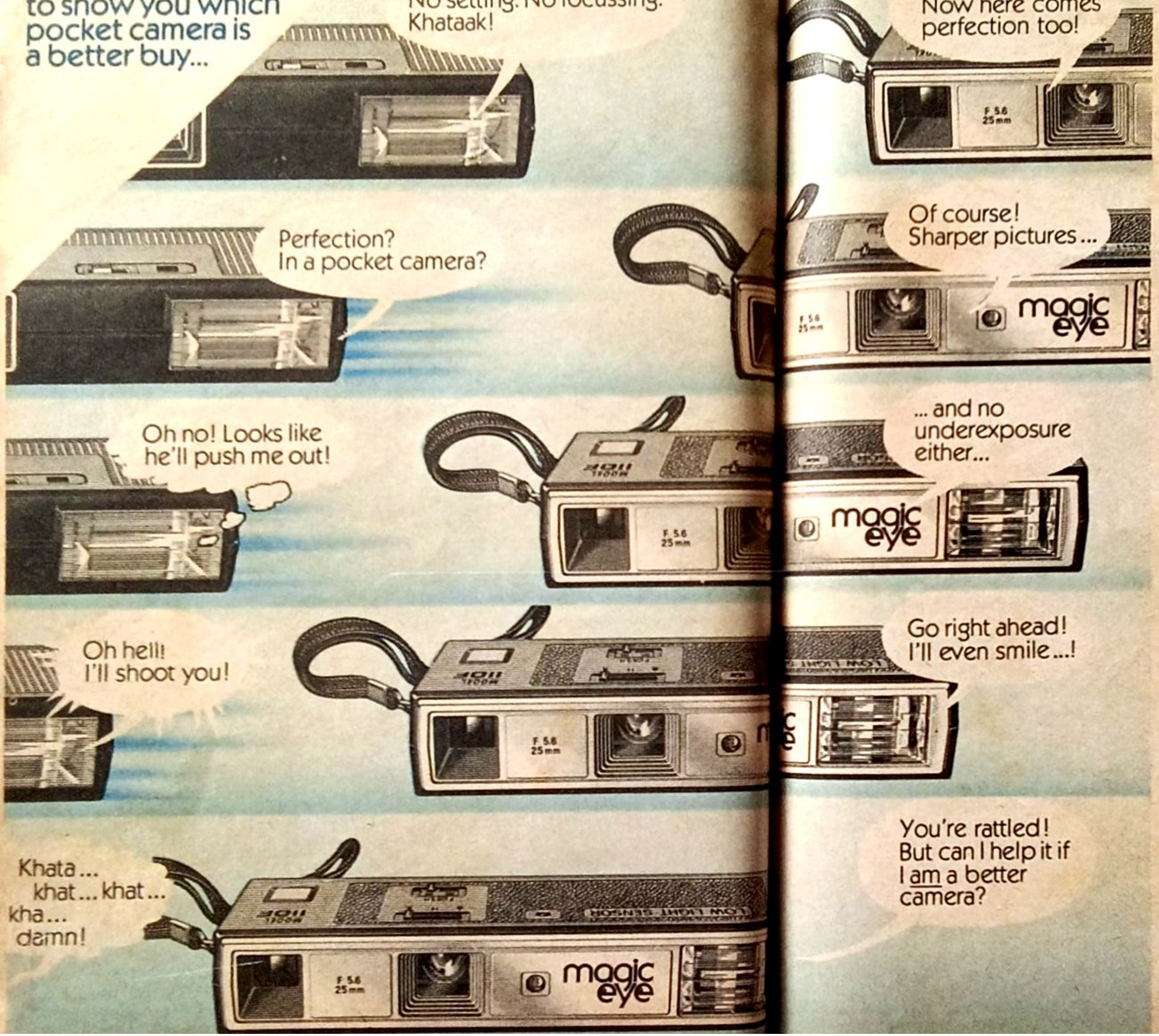
2. The panelists thought that it would be reasonable for Mrs B to feel at least slightly—and perhaps even intensely—jealous. One felt that Mr B's being *interested* in an attractive woman is no ground for jealousy, but his *flirting* with her—where Mrs B can see him—is a real offence and suggests that he's trying to antagonize his wife. Mrs B's jealousy—if properly used—may repel the threat and get Mr B to change his ways.

3. and 4. The majority opinion is that serious jealousy is not called for in either case. Only slight feelings of jealousy—and no action—are warranted by Mr C's keeping old love letters. One panelist's sensible comment: "Relationships that predate a marriage are important parts of a person's history; he shouldn't be expected to discard those parts when he marries."

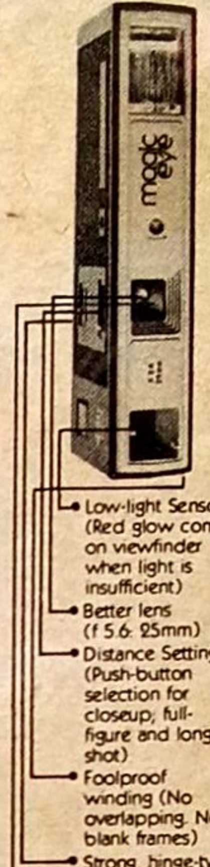
Most panelists said that Mr D might reasonably feel a trifle jealous of his wife's meeting an old boy-friend for a chat, but a strong reaction isn't in order. Mrs D has a right to her past as long as it doesn't imperil the present. Still, Mrs D's former boy-friend may seem a competitor, and Mr D may feel he's being left out. If so, he might tell his wife and ask to be part of the get-together.

5. A nearly unanimous response: jealousy on Mrs E's part would be a normal response to Mr E's having business lunches with his ex-lover. Unlike a premarital lover, a former extra-

A show-down to show you which pocket camera is a better buy...


No setting. No focussing. Khataak!
That was ease. Now here comes perfection too!
Perfection? In a pocket camera?
Of course! Sharper pictures...
Oh no! Looks like he'll push me out!
... and no underexposure either...
Oh hell! I'll shoot you!
Go right ahead! I'll even smile...!
Khata... khat... khat... kha... damn!
You're rattled! But can I help it if I am a better camera?
F 5.6 25 mm
magic eye

7 winning features that make Magic Eye the best buy...



- Low-light Sensor (Red glow comes on viewfinder when light is insufficient)
- Better lens (f 5.6: 25mm)
- Distance Setting (Push-button selection for closeup, full-figure and long-shot)
- Foolproof winding (No overlapping. No blank frames)
- Strong, hinge-type loading section (more secure loading)
- Glass lens protector (Ensures lens life and clarity)
- Better looks; better finish.

magic eye

110 F Pocket Camera

Give it a smile.

Avenues:ME:103:84

marital lover was once a real rival—and might be again. While the experts disagreed as to how strong a reaction would be reasonable, the majority opted for intensely—or at least somewhat—jealous. If the ex-lovers discuss their business in an office, jealousy would not be called for. Electing to meet in a social situation seems to imply something else.

6. Most panelists said it would not be reasonable for Mr F to feel strongly jealous when his wife has an intimate chat with a lifelong male friend. Some of them, however, did feel that Mr F might experience some jealousy. A common cause for jealousy is the fear of being shut out of an important part of a mate's life. If Mrs F tells her husband about the conversation, he has no reason to feel shut out that way.

7. Most panelists agree that some jealousy would be natural; a former wife seems a potential rival. One expert summed up the dilemma: from Mr G's point of view, talking to his ex-wife is legitimate—and from the present Mrs G's point of view, jealousy of long meetings is legitimate. The only solution is for husband and wife to discuss their feelings openly.

8. The majority of experts said Mr H would be justified in feeling either somewhat or even intensely jealous. One panelist's acerbic comment: "Her explanation is not credible. Either she lacks insight into her motivation or is dissembling. Once launched, sexual behaviour has a momentum of its own." Another said, "What's threatening to Mr H is her acting on impulse, as she herself put it. It's hard to trust such a person."

9. Almost all panelists say that a jealous response to even a casual, one-time fling by one's spouse would be a normal reaction, and most felt that it would be fairly strong. One expert thought that the explanation given—a long time without sex—is phony: "If a pledge of sexual fidelity is taken seriously, deprivation is not an excuse. Masturbation is an outlet that does not threaten the marital bond." Most people don't see casual sex as merely scratching an itch but as an act with emotional potential—and therefore as a trespass or invasion of marriage.

10. In this case, intense jealousy and anger would be the natural response. The affair was secret until discovered; it is thus a violation of trust besides being potent competition to the husband-wife relationship. As one panelist said, "It's duplicity at a classic level. The plea that the relationship be allowed to continue means she needs him only in order to carry on the affair with the other man."

The unanswerable question, however, is whether overt jealousy can preserve the marital relationship in this case. Even if used in the form of thoughtful discussions and bargaining, jealousy may do no good, depending on the strength of the unfaithful spouse's commitment to the affair. But to feel or show no jealousy would seem to say that there was nothing worth trying to protect or preserve.

303 capsules (Three Not Three)*

A unique and trusted Ayurvedic formulation in a concentrated form, formulated by a specialised technique and containing highly potent and time-tested HERBS and MINERALS in combination with the celebrated ingredients — MOTI BHASMA, KESHAR, KASTURI, traditionally known for their efficacious, therapeutic properties for enhancing vigour and vitality; activates both body and mind; restores inner strength and impetus for the desired effect.

The result-oriented Ayurvedic formulation, once used by RAJAS, MAHARAJAS and NAWABS, is now available to you.

For the use of MALE adults only.
Available with all leading chemists.

Sustained manly vigour!

SHANTAKARAM PHARMACEUTICALS
P. O. BOX NO. 25,
GWALIOR 474 001.

* * *

For Comparison

I WAS WORKING in a library when a boy about 11 years old came in and asked if I had a book about some famous man who had received bad marks in school.

—J.J.M.Q.

A Little of All

THE SLAVE works because he is compelled to; the artist because he loves to; the fool does unnecessary work because he is a fool. Each one of us is part slave, part artist, and part fool. The wise man is he who strives to be all three in due proportion, and succeeds in being not too much of any one.

—Andrew MacPhail, *Essays in Politics*

IOL
Industrial Gases • Welding Products
Cryogenic Plants • Health Care Products

When people in highly diverse fields look for "the IOL mark", what do you think it implies?

Simply that Indian Oxygen Limited (IOL) has acquired an enviable reputation for the quality of its products and service. In areas far beyond only oxygen.

Industrial gases : applications to spur development in vital industries

IOL pioneered the manufacture of oxygen, nitrogen, argon and dissolved acetylene in India. Today IOL's gases have varied applications. From wayside welding to shipbuilding to INSAT, from transportation and telecommunication to power and mining. The Company not only manufactures these gases but is unique in providing technologies associated with their different applications. Further, IOL manufactures special gases which play a vital role in sophisticated industries and research.

A new dimension to metal fabrication

IOL offers a comprehensive range of welding equipment, consumables and accessories for customers. All this, along with advisory services, comprises a total welding "package". IOL also offers cutting machines to suit every industry. From automobile manufacture to shipbuilding.

Cryogenic technology for building infrastructure

IOL's cryogenic plant and associated equipment manufacturing activity has helped build the infrastructure for planned development. The Company offers complete cryogenic plants, and engineering, distribution and handling systems on a turnkey basis. IOL was the first to manufacture and supply air separation units in India.

Health care : a priority concern

The Company continues to contribute to the medical profession with an assured supply of medical gases, anaesthetic equipment and equipment for lung functions. As well as centralised distribution systems through pipelines for medical gases and vacuum to medical establishments.

IOL
Industrial Gases • Welding Products
Cryogenic Plants • Health Care Products

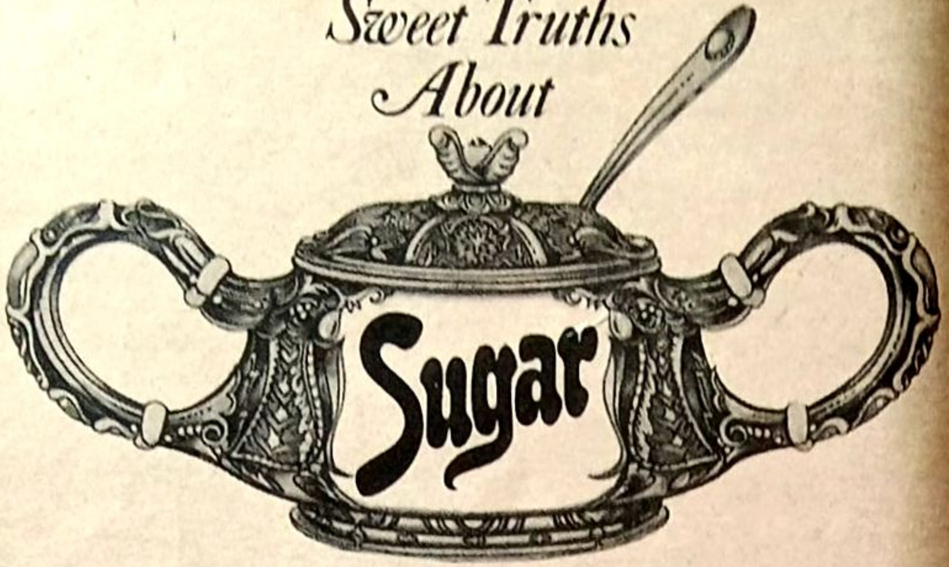
Your assurance of quality and service

IOL

Indian Oxygen Limited
A member of The BOC Group

OSM 6771A/3

Sweet Truths About Sugar



By Elizabeth Whelan and Dr Fredrick Stare

How true is the popular misconception about sugar—that "it's not good for you"?

In recent years sugar has increasingly been pronounced one of the world's most fearsome scourges—right up there with the Black Plague. We are told that sugar causes everything from obesity to learning disabilities. No one, from infant to centenarian, seems immune to its deadly attack.

Just what *is* sugar? Chemically, there are many compounds called sugars, but only a few are found naturally in the foods we eat. Among sweeteners that are added the most common are sucrose—refined from cane or beet sugar. Naturally occurring sugars include lactose, found in milk, and glucose and fructose, both common in fruits and vegetables. In order to be used by the body, all sugars must be converted to glucose—the sugar found in our blood. The human body cares little where its supplies originate.

Health faddists maintain that refined white sugar is dangerous, and that natural sweeteners are fine. But a molecule of sugar, refined or not, is a molecule of sugar. While it is true that table sugar contains no vitamins, minerals or protein, the amounts of nutrients in less-refined sugars such as raw or brown sugar or in honey, for example—are too small to be important. If you prefer the taste of brown sugar or honey to table sugar, use them. But don't think that you are swallowing anything nutritionally superior.

Of course, popular misconceptions about sugar extend far beyond a vague, "It's not good for you." Let's look at some of the specific charges laid at sugar's door:

Obesity. Excess calories, regardless of where they come from, are fattening. No one kind of calorie is more fattening than any other. Fat, however, contains more than twice as many calories per gram as carbohydrates (including sugar) or proteins. Thus, a pat of butter on a slice of toast is more than twice as fattening as an equal weight of jelly. Clearly, then, it makes no sense to attempt a sugar-free reducing diet if you replace the sugar with gravies, fried potatoes and other fatty foods.

Diabetes. Insulin, a hormone produced by the pancreas, is necessary for metabolizing glucose in the blood. In diabetes, the pancreas either fails to produce enough insulin or the insulin it does produce is unable to function properly. Diabetics, therefore, are subject to excessive blood-sugar levels, especially after ingesting sugar. Eating sugary foods, however, has *not* been shown to cause the disease.

Hypoglycemia. The opposite of diabetes occurs when the pancreas produces too much insulin, resulting in blood-sugar levels that are abnormally low. True hypoglycemia is an extremely rare condition, with symptoms that display a remarkable parallel to those of anxiety neurosis. This condition is tailor-made for some hypochondriacs who insist that a vague collection of symptoms be tagged with a name.

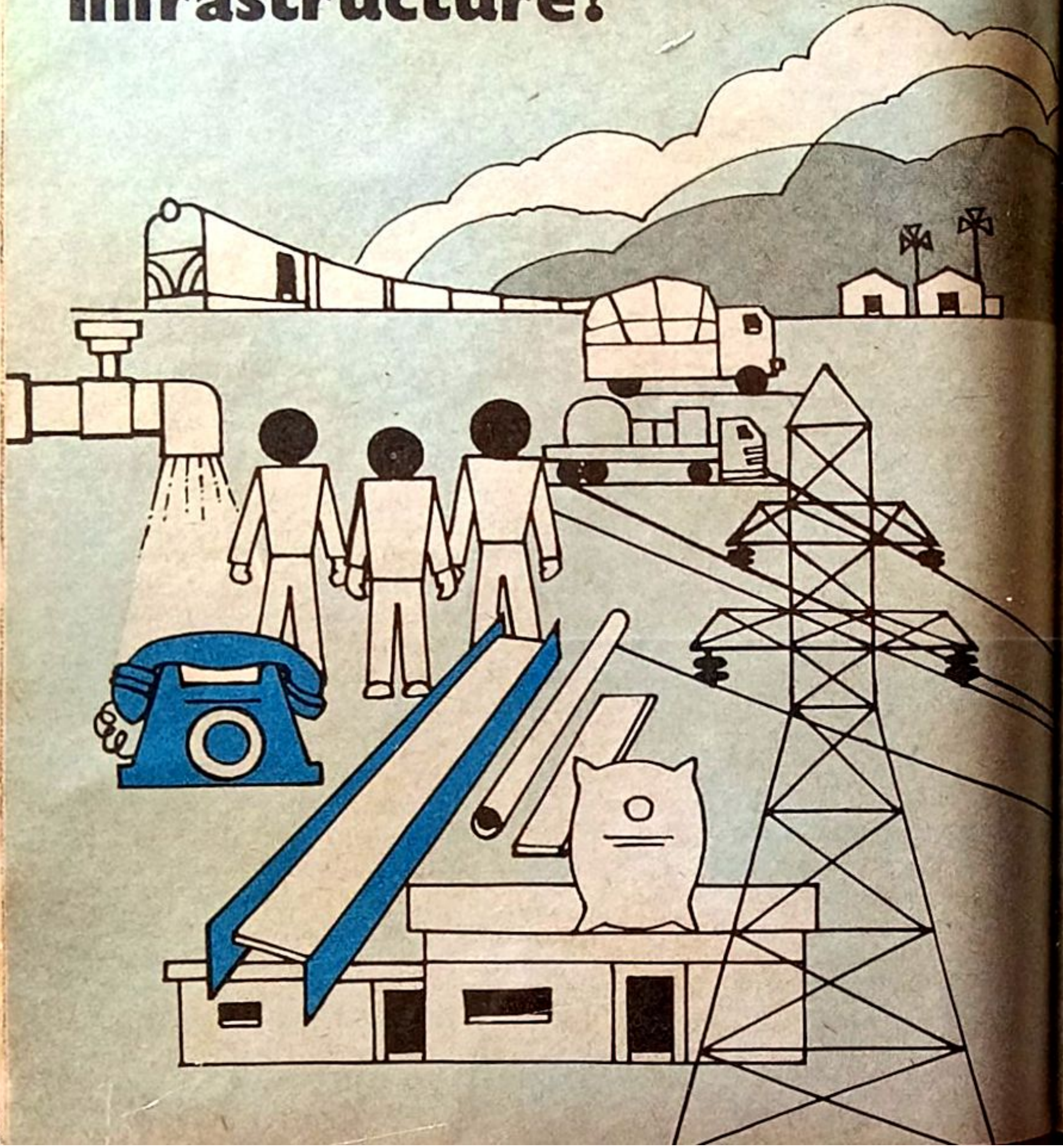
Low blood-sugar levels in those few genuine hypoglycemics can be caused by pancreatic tumours. However, popular "wisdom" has decreed that too much sugar in the diet (particularly refined sugar) stimulates the pancreas to produce too much insulin, thus leading to lowered blood sugar. This is unadulterated nonsense.

Tooth decay. Although sugar can indeed contribute to cavities, don't think that dental problems can be avoided simply by replacing table sugar with good old "natural" honey or dried fruits. *Exposure time* is what we need to be concerned with. The stickier the sweet, the longer it will remain in contact with the tooth, the more damage will be done. The only way to cut down on exposure time is to eliminate sticky sweets between meals—and to clean your

CONDENSED FROM "THE ONE HUNDRED-PER CENT NATURAL PURELY ORGANIC CHOLESTEROL-FREE MEGAVITAMIN LOW-CARBOHYDRATE NUTRITION HOAX." © 1983 ELIZABETH WHELAN AND FREDRICK STARE AND USED BY PERMISSION OF WILLIAM MORRIS AGENCY, NEW YORK

What's special about SIPCOT?—IV

Loans, subsidies, incentives...great! But what about infrastructure?



We know nothing can be built without a strong Infrastructure—the foundation.

That's why we left nothing to chance. In SIPCOT Complexes, you are assured of all basics:

- Locations—close enough to railheads and to major cities
- Transport—ready at hand: by rail, road. Even by sea/air in some cases
- Power—guaranteed without cuts for 5 years
- Water—available in plenty at nominal cost
- Manpower—in abundance: skilled, semi-skilled, unskilled; oriented to high productivity, hard work
- P & T, Telephone, Telex facilities—well developed
- Raw Materials—close or well-connected to major sources
- Accommodation, education, medicare, entertainment, Banks—all facilities & amenities in good supply

What's more, certain SIPCOT Complexes have special facilities for developing specific industries like Automobiles, Chemical, Electronics, etc.

Yes, this is your chance to show Enterprise—for the prize of prosperity.

SIPCOT

Write for full details today.

SIPCOT

Managing Director
State Industries Promotion
Corporation of Tamil Nadu Ltd.
51-52, Greams Road, Madras 600 06.
Phone: 88261 (5 lines). Telex: 7736

DIPR/437/83/ADWAVE/SIPCOT

teeth more often. The bacteria in the mouth that cause cavities aren't the least bit particular about the type of sugar they feed on. In fact, some "health" foods, such as raisins, can nestle among the teeth all day, providing hours of tasty fare for bacteria.

Heart disease. In 1964 an English physician, John Yudkin, made the widely publicized charge that sugar is a causative factor in heart disease. Yudkin had arrived at his theory by comparing the sugar intake of 45 heart patients with 13 hospitalized accident victims and 12 men residing in the area. His study found that the heart patients consumed substantially more sugar. Thus he concluded, and the press duly reported, that sugar is bad for the heart.

But a quick look at some simple statistics illustrates why the sugar-heart-disease theory makes so little sense. If the relationship were positive, countries with high sugar consumption should have a higher rate of heart disease. In fact, some—such as Venezuela, Cuba, Brazil and Costa Rica—have a rather low incidence.

Learning disabilities. In this case there aren't even any scientific studies to refute. We hear a great deal about sugar creating learning difficulties, but what is being circulated is a combination of uncontrolled studies, testimonials, opinion and conjecture.

Also unsubstantiated is the contention that sugar and sugar products cause deviant behaviour. After killing the mayor and a supervisor of San Francisco in 1978, former supervisor Dan White included as part of his legal defence testimony that he had eaten a lot of cream cakes shortly before the murder. One health-food advocate even claimed that the infamous Manson "family" who murdered American actress Sharon Tate had subsisted mainly on chocolates. "Where the diet is good," she declared, "there is no crime." These and similar hypotheses are still devoid of solid scientific support.

"Empty" calories. The charge that sugar is full of "empty" calories is plain silly. All calories are full calories—i.e., full of energy. If sugar products are consumed in place of other needed nutrients, dietary deficiencies can occur. But as long as you eat sensibly, with an eye to proper nutrition, there is no harm whatever in using snack foods to fulfil additional calorie requirements.

So, the evidence is clear: sugar is sweet. But that *doesn't* mean it's bad for you.

◆

Did you ever stop to think what the word "vote" means? To me it means: "Voice Of Taxpayers Everywhere."

—Martin Buxbaum in *Table Talk*

Guests for Tea
MARIE
BRITANNIA

BRITANNIA
Marie
BRITANNIA
Marie
Marie

Bring out BRITANNIA MARIE

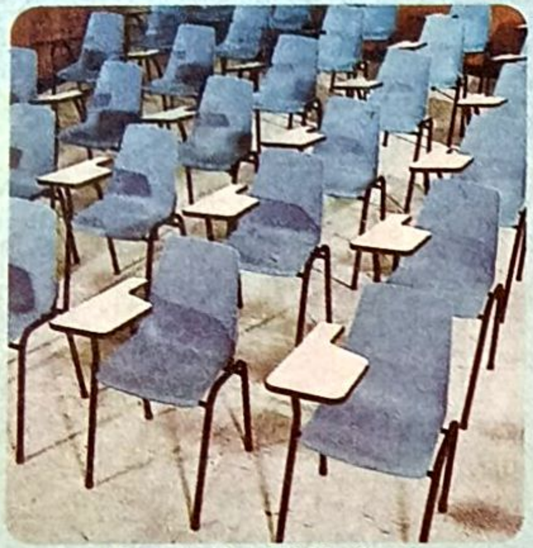
Teamates: the cup that cheers and the biscuit that goes with it. Britannia Marie! Just the thing to serve when guests drop in. The crisp, light tea-time bite — Britannia Marie. Keep a pack handy.

BRITANNIA
MARIE
Biscuits
the crisp tea-time favourite

LINTAS BIN MRE 7 1712

Moderna Seating System

The concept that made the world sit up.
And discover more and more places for it.



Writing modules with folding boards.

Upholstered swivel modules.

Portable garden seating.

Moderna Seating System. A unique seating concept popular the world over. Totally flexible and adaptable. Tailor-made to meet any seating situation. Indoors and outdoors.

Made from the wonder material, polypropylene, Moderna is durable. Lightweight. Stackable. And needs the minimum of looking after. In short, the kind of seating that offers the best value-for-money. Everytime.

What's more, Moderna Shells have been tested and certified by FIRA, U.K.

Let's show you how we can handle your seating problems. Write in for free advisory service.

Blow Plast Ltd.
V.I.P. House
88C Old Prabhadevi Road
Bombay 400 025.

MODERNA
the versatile seating system

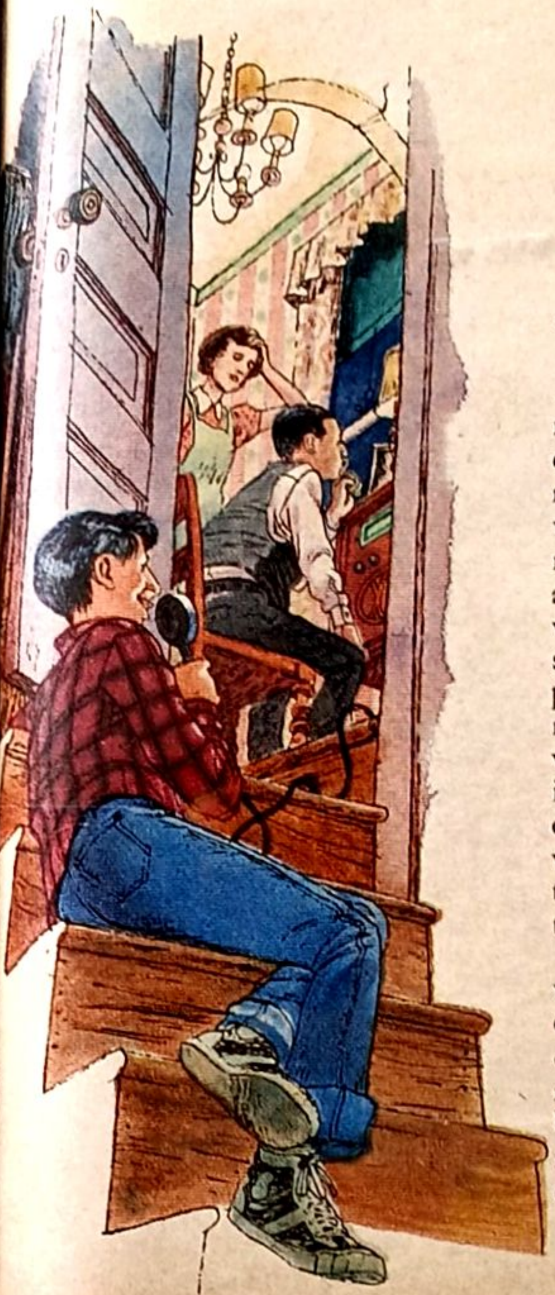
FIRA MEMBER

Contour Ads-BP-604/83

"And The Winner Is . . ."

A popular American comedian recalls his first "on-air" performance

By David Brenner



MY FATHER was always looking for a shortcut to fame and fortune—schemes, swindles, even radio-show contests. In one contest the announcer asked listeners to guess where he was speaking from. He might be inside a bank vault or on a giantwheel, for example. Each week he gave verbal hints and sound-effect clues. People sent in postcards with their guesses, names and phone numbers. If you were right, your postcard was put into a rotating drum, and if your card was selected, you'd win prizes worth $1,000. Once, for about two weeks, my father was positive that the location was a submarine.

One evening, something in the window of a seedy electronics shop caught my eye. It was a crude sort of microphone that could be connected to any radio. By pressing a button, I was able to shut off the radio and have my voice come out of the speaker. It cost me $18, but

CONDENSED FROM 'SOFT PRETZELS WITH MUSTARD'
© 1983 DAVID BRENNER. PUBLISHED BY ARBOR HOUSE
PUBLISHING COMPANY, NEW YORK

what better use can a 14-year-old get from his money than to trick his crafty, shrewd father? I installed it when no one was home, hiding the microphone on a shelf above the cellar steps.

The Answer. On the last night of the contest my father was glued to the radio. I went outside, ran around the corner, up the alley, into the backyard and wormed through the cellar window. I could hear the radio clearly. "Here's another clue. Clang, clang."

"See. What'd I tell you, Stelle?" I heard my father say to my mother. "It's a sub."

"All I heard was some clanging noise," she said. "How's that a submarine?"

"You wouldn't understand. I was in the Navy."

"When you were in the Navy, Lou, there weren't any subs."

". . .before we reveal the answer and pick a winner, here is the last clue: 'Whatever goes up must come down but, thank goodness, whatever goes down must come up.' "

"What'd I tell you, Stelle? Did you hear that clue?"

I switched on my mike. I could hear the radio go dead. I held the mike very close and whispered mysteriously to disguise my voice:

"Here it comes, ladies and gentlemen. The answer you've all been waiting for. The words that'll mean big prizes to some lucky person."

"Come on, cut the unnecessary talk and give the answer!" My father was never strong on patience.

"Hold your horses, folks."

"Stelle, did you hear that?"

"I'm about to announce the mystery location. We . . . are . . . inside . . ."

Exuberant. At this point I imitated static. My father pounded the radio with his fist. I had to stuff my handkerchief in my mouth to keep from laughing.

"I don't believe it! I'm going to take this pile of junk and burn it!"

"Easy, Lou, you'll have a heart attack."

I ended the static.

"And only 35 people guessed that we were in a (static). . ."

"Static again! I don't believe it! Do you, Stelle?"

"Yes, Lou, I believe it."

"Now, let's pick one of the lucky 35 who guessed a submarine."

"Did you hear that, Stelle? A submarine! I knew it!"

"The barrel keeps going around and around and. . ."

"That's enough 'around' already!"

". . . around and. . .(static). . ."

"Oh, for heaven's sake. I'm going to miss the winner's name!"

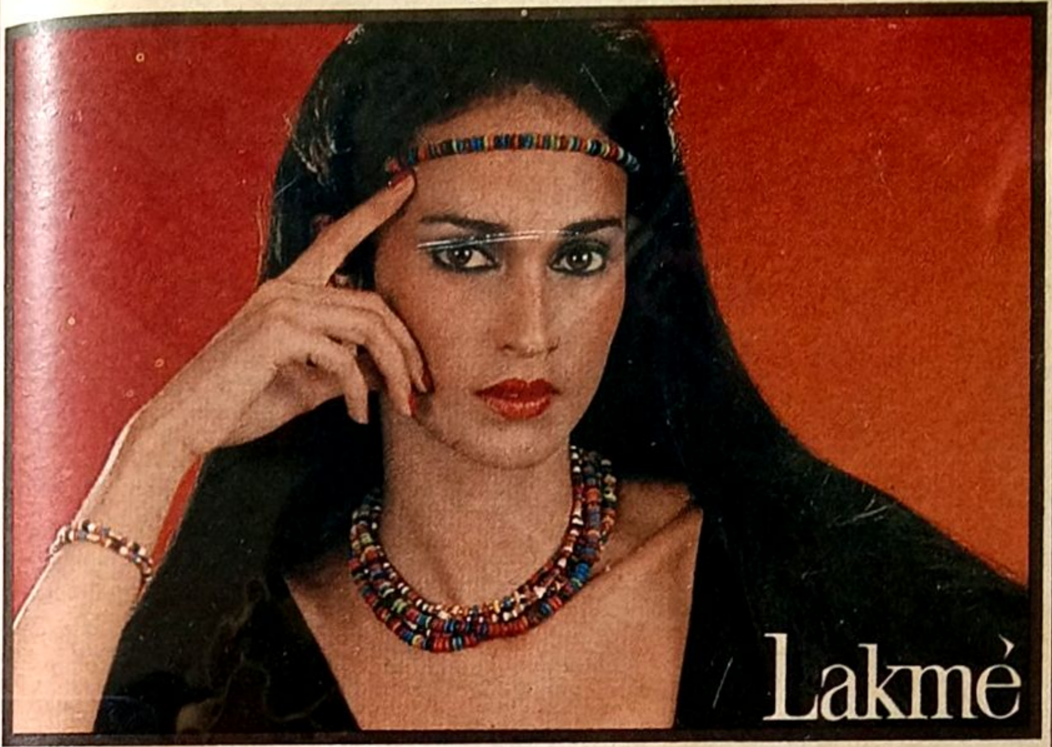
". . .and around and around. . ."

"Thank God they're still going around."

". . . and it stops. My hand is going inside and I'm going to pick

A shampoo called Lakmé
and a woman called you.

The result is sheer magic.



Lakmè shampoo with conditioner.
The beauty treatment for your hair.

The conditioner in Lakmé shampoo does all kinds of lovely things to your hair.
It leaves a glossy coating on every single hair shaft which gives body and bounce to your hair.
Makes it more manageable.
And leaves it tangle-free.
For soft, shiny, silky, unbelievably beautiful hair, there's only one shampoo.
It's called Lakmé.
Not an ordinary shampoo.
Neither are you an ordinary woman.

Lakmé
Lakmé
Lakmé
Lakmé

There are four kinds of hair.
There are four kinds of Lakmé shampoo.

Contract-LS-121

out one postcard, one winner. I've got it. The winner is (static?). . ."

"No! No! No!"

"Congratulations, Mr (static)..."

"Too much! I'm so unlucky, if it was raining soup, I'd be holding a fork!"

". . . now let's all sing a hip, hip hooray for Mr Louis Brenner. Hip, hip hooray!"

My father's scream could be heard in the next town. He ran around the living room, swinging my mother in his arms. I went down the cellar steps, climbed out of the window, hopped over the backyard fence, ran up the alley and casually walked through the front door.

"I won!" shouted my father.

"Won what?"

"The submarine!"

"What are we going to do with a submarine?"

"No, dope, the answer was a submarine. They picked my card. I won! Here's five dollars. Go get yourself a barrel of ice-cream. We're rich! And everyone stay off the phone so they can call to tell me I won!"

"Sure. See you later."

Tit for Tat. I treated myself to a double-thick chocolate and vanilla milk-shake and came home. Dad was sitting by the phone when I walked in. Mum had switched the radio to classical music to calm him down. I slipped down to the cellar, picked up the mike and threw the switch, this time using an English accent.

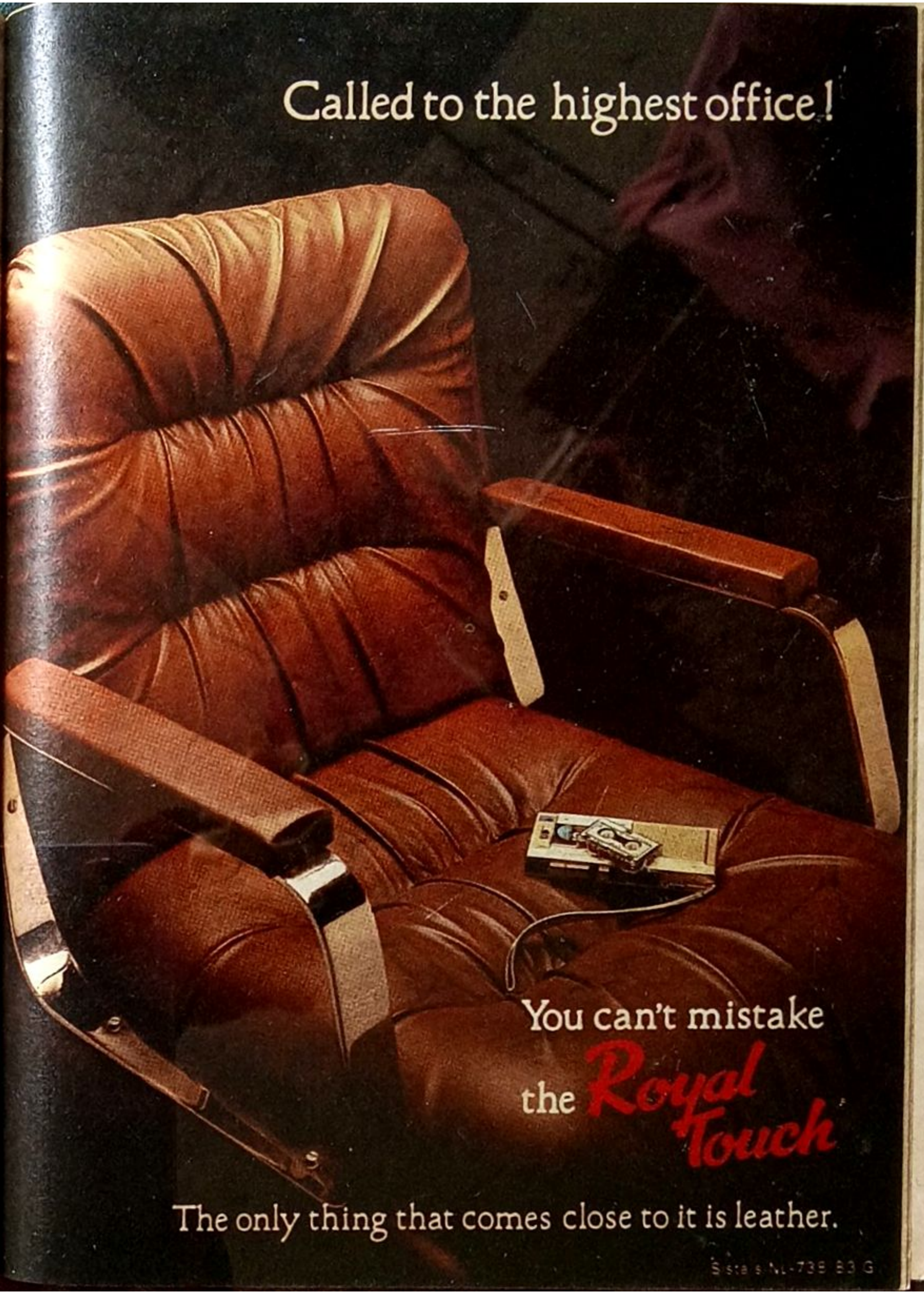
"Attention, please. Although we are not the same station, we wish to announce that the programme 'Where Are We?' has made a dreadful mistake. The answer is not a submarine, as previously announced, but a lift. The real winner is not Louis Brenner but his much disliked brother-in-law, Ervin Rosenfeld. Sorry, Lou. Congratulations, Ervin."

I clicked the button. The classical music came back on. I hid the microphone and went back upstairs. My parents were seated on the front porch. They didn't say anything to me when I came out.

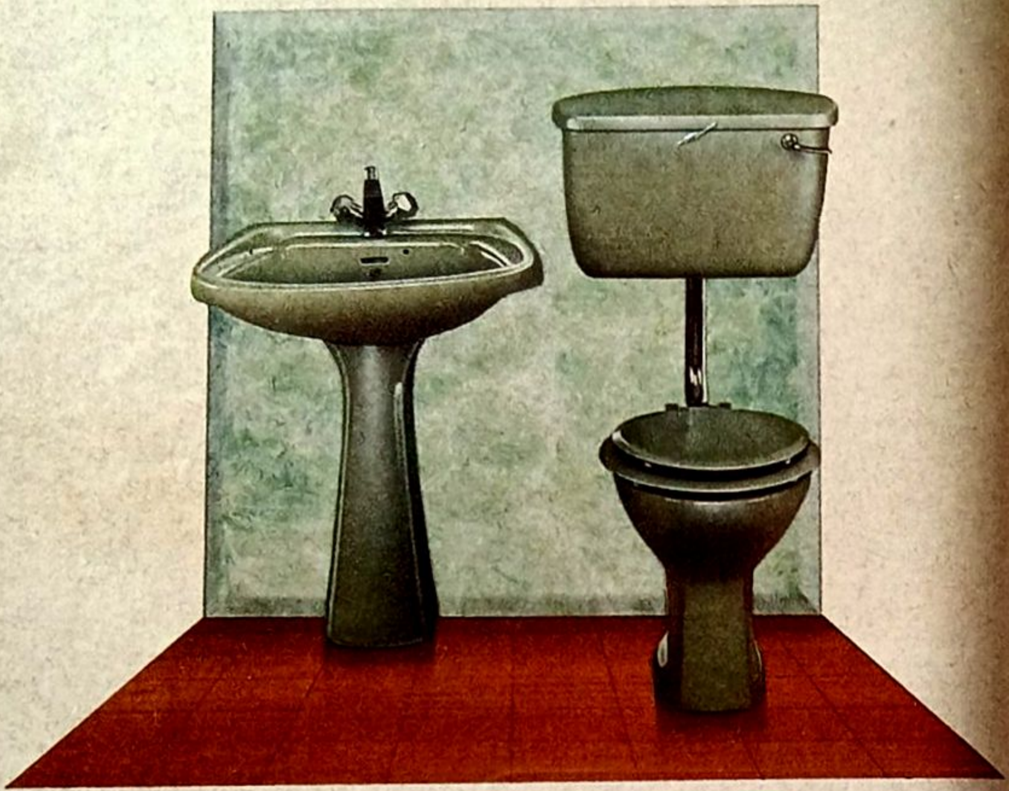
Later, after regaling my friends with the story of the radio contest, I came home, got into bed and switched on my little radio, as I did every night. Just as I began to drop off to sleep a heavily accented voice interrupted the broadcast.

"If a certain young child by the name of David doesn't repay his father the five dollars he borrowed tonight, plus one dollar interest for aggravation he will be very, very sorry, I promise you. Goodnight and God bless."

I was hysterical. I swung over and lifted the spread so I could look under the bed. There he was—my father, flat on his back, microphone in hand, smile on his face. I paid him back on payday. He dropped the interest charge. I knew he would.


Called to the highest office!
You can't mistake the Royal Touch
The only thing that comes close to it is leather.
Sista's NL-739 83 G

When the tiles are Johnson, should the sanitaryware be anything less?



A beautiful way to furnish your bathroom . . .
Johnson Pedder Sanitaryware. With the Johnson reputation for quality and durability.

Washbasins and Indian and Western style commodes. In sleek designs and a range of pleasing colours to match your Johnson tiles. All vitreous coated for a smooth, sparkling finish!
So when you're shopping for Sanitaryware, go to the people you trust: Johnson.

JOHNSON PEDDER
SANITARYWARE
From the makers of Johnson Tiles.

HTB-HRJ-9921

VOLUME 124 Reader's Digest MARCH 1984
Articles of enduring significance, in condensed permanent booklet form

Artificial Skin: From Concept to Creation

By Laurence Cherry

Doctors treating burns victims have long sought more effective ways of replacing damaged flesh. Now two scientists have developed a substance that offers fresh hopes

In November 1982, Patrick O'Brien* was at his factory job in Boston. A little before noon, a flash fire started about a metre from the husky, 25-year-old redhead, and burnt the skin off almost four-fifths of his body.

Four years earlier doctors would have had little hope of saving O'Brien. Even today burns are a major cause of accidental death. Burnt flesh is exposed to invasion by lethal bacteria. The body's metabolic rate soars; its biochemical defenders rush to protect it against the germs; vital fluids pour into the burn area, causing general dehydration.

---

*Names of all patients have been changed to protect their privacy.

Burnt areas can be treated successfully with skin grafted from unburnt areas of the victim's body, or with temporary grafts from pigs or human cadavers. If donor grafts are to last longer than two weeks, drugs must be administered to prevent the patient's body from rejecting the skin. Because they suppress the immune system, the drugs increase the risk of infection—and of death.

However, when O'Brien was hospitalized, doctors were ready with an exciting new substance called artificial skin. Used on almost 50 patients in America since 1979, the material has helped save many lives.

Artificial skin is the product of the determination and stubbornness of two American scientists. The first of its co-creators is Dr John Burke. As chief of Trauma Services at Boston's Massachusetts General Hospital and consultant to the Shriners Burn Institute there, a renowned centre for the treatment of children, Burke is one of the world's leading burn specialists. In the late 1950s he had begun searching for an improved kind of skin graft to help his patients.

A Breakthrough. An elementary principle of burns medicine is to rid the body of skin killed by the burning heat; but the exposed tissue, muscle and fat must be covered at once. Dr Burke says, "We knew that, theoretically at least, you ought to be able to create an artificial substance to function like skin, without the problems of pig-skin or cadaver grafts."

For years Burke and his team at Massachusetts General analysed the chemical structure of flesh, hoping to create a serviceable skin replica. But failure followed failure.

In December 1969, physical chemist Ioannis Yannas, on the faculty of the Massachusetts Institute of Technology (MIT), heard of Burke's work with burn patients. For years Yannas had specialized in the study of collagen, the protein that largely composes skin. (Cartilage and bone also contain collagen.) He phoned Burke and suggested they meet.

The two began collaborating almost immediately, but it was six years before they made the crucial theoretical breakthrough. They noted that collagen fibres are found in the skin together with another complex structure called GAG (glycosaminoglycan). By taking collagen from such a readily available source as cowhide and combining it with GAG, the resulting collagen-GAG complex could be chemically and physically treated to form a supple, porous material that encourages growth of healthy skin cells around it.

Next, they removed portions of skin from anaesthetized guinea pigs and covered the wounds with grafts of their novel substance. For weeks, after grafting and initial healing, they waited, suspense heightening, to see how the animals would fare. Each day one or both of the scientists examined the pigs and breathed a sigh of relief as they saw that the artificial skin continued to flourish. No drugs were needed to suppress the animals' immune systems, either. Their grafted, burn-like wounds appeared stable and solidly healed; the artificial skin was a success.

A piece of artificial skin draped across two hands

Professor Ioannis Yannas, explaining how artificial skin encourages healthy cell growth

"After many, many subsequent trials," says Burke, "we knew we could safely experiment on a human being."

GAG extracted from shark cartilage was blended into a solution of collagen extracted from cowhide; then it was freeze-dried and further processed, making the material lightweight, white and porous. Baking shaped and sterilized it, and silicone adhesives were added as the flexible plastic equivalent of the upper layer of human skin.

The crucial test came in September 1979, when Agnes Lawler, a car-accident victim, was rushed to Massachusetts General with burns covering nearly 60 per cent of her body. Because her life seemed in jeopardy—and with her relatives' consent—Dr Burke and his team decided to try the artificial

PHOTOS: LEFT, DAN MC COY/BLACK STAR; RIGHT, IRA WYMAN/SYGMA

skin. First they cut away the burnt flesh. Then the artificial skin, looking like strips of a moist, smooth and elastic paper towelling, was draped over the wounds. Like natural skin, the top membrane of the artificial skin kept precious body fluids in and deadly bacteria out. Within days new cells began to busily grow into the lattice beneath.

Three weeks later, the team used tweezers to peel away the now unnecessary top layer. Where terrible burns had once been, there was a gleaming quiltwork of new red and yellow tissue, crowded with blood-vessels and rapidly replenishing cells, forming a replacement for the thick, lower (dermal) layer of the skin.

To replace the outer, epidermal layer, the team took bits of skin from the unburnt parts of the woman's body and spread those cells widely over the new, rapidly healing dermal portion. By combining the artificial skin with some of her own tissue, it was hoped that both layers would last for the rest of her life. Within three weeks the new skin colour was very much like Lawler's unburnt skin.

Testing the once-burnt area with gentle hands gave team members the satisfaction of knowing that the new skin had the properties of the lost skin. Nerve endings had regenerated: Lawler would be able to feel heat, cold, all the sensations of touch. Artificial skin had passed its human test.

More than 30 other patients had been treated with artificial skin by the time Patrick O'Brien was wheeled into the operating theatre in November 1982. In six operations lasting 24 hours in all, Burke's burns team used nearly three-quarters of a square metre of artificial skin to cover O'Brien's neck, chest, stomach and arms. Then the young man was covered by a shroud of bandages so wide that only his eyes and nose were visible. For weeks he remained in a coma.

Two days after New Year's, a nurse examining the intravenous tube that fed the comatose patient felt a slight stir. "What happened?" O'Brien whispered. "Where am I?" He had no memory of anything after the flash fire. He was told of his ordeal and shown the sites where the artificial skin had been applied. They appeared as bright, healing areas of ruddy pink.

O'Brien still needs months of therapy to regain complete use of his stiffened joints. But by mid-1983 he was back to full activity, and his handsome appearance has been largely preserved.

Artificial skin cannot save the life of every burn victim, Burke emphasizes. But the vast majority of patients treated with it have survived. Most report normal or near-normal sensation and are largely free of the intense, constant itch that is a common side effect of ordinary skin grafts.

Gradual Progress. As news of the success of artificial skin has spread, the two scientists have been swamped with letters from families of burn victims on every continent. Unfortunately, only ten workers in Yannas's MIT laboratory are involved in manufacturing the material, so there is currently enough artificial skin for only a few dozen patients.

But progress is being made. A pharmaceutical company in Kansas City has been licensed to develop, manufacture and market the substance. Pending the outcome of clinical studies now in progress (and scheduled for completion in 1985), the approval of the US Food and Drug Administration (FDA) will, it is hoped, be rapid.

Meanwhile, Burke and Yannas are already at work on an improved version of their artificial skin, which they hope to apply to their first burn victim within a year. If all goes as planned, the patient's skin will be so perfectly woven together after 30 days that almost no scar will be visible to the naked eye.

"In some ways, our research project is beginning all over again," says Professor Yannas. "Before, we often felt as if we were fumbling in a dark room. Now we've stepped into a bigger room, which is also dark. But that just means we have to light another candle."

Clear Cut

A Soviet citizen goes to police headquarters where he tells the officer in charge, "Comrade, I have come to notify you that my parrot has run away."

The officer angrily replies, "Is this all you've bothered me for?"

"No," says the citizen. "I would like a statement drawn up that I solemnly swear I do not share my parrot's political views."

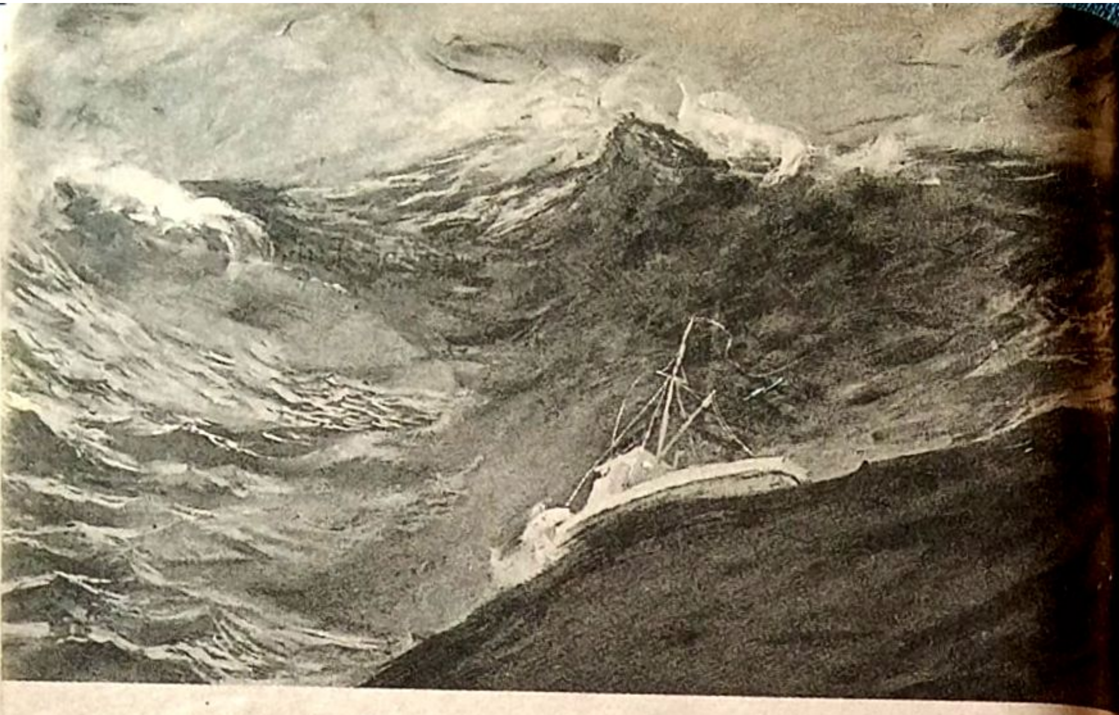
—Antoine and Philippe Meyer, *Storie per seicento anni*

Thoughtful

As usual, I had brought sweets when I visited my young nieces. The older one, Froukje, showed me a book she had been given in kindergarten by the school dentist. It was illustrated with all sorts of forbidden foods, including the sweets I had brought for the children. I said I'd take them back home with me.

"You don't have to, do you, Aunty?" asked Froukje. "Hiltje could eat them. She hasn't got that book yet."

—J. Bergfeld



The Storm Nobody Knew Was Coming

By Evan McLeod Wylie

When a screaming gale's towering waves struck the rich fishing grounds of Georges Bank, the harvest was tragedy

Outward bound from the south shore of Cape Cod, Massachusetts, in a light breeze, the 17-metre offshore lobster boat *Fair Wind* sped across the water. Her seasoned four-man crew had been working on a gruelling schedule since early April, but rich hauls and high market prices for lobster had made many a trip a bonanza.

The seven-year-old *Fair Wind* was a rugged, all-steel vessel of about 25 tonnes propelled by a 265-hp diesel engine and outfitted with the latest in sophisticated navigational gear. It was November 21, 1980, and the mood aboard was lighthearted because this was to be one of the last voyages of the year. Soon the *Fair Wind* would be dry-docked and her crew on a winter holiday.

That Friday afternoon a favourable marine forecast had brought out scallopers, draggers, trawlers and other lobster boats. Many were planning to work within 15 to 30 kilometres of land. But *Fair Wind* was bound for the rich fishing grounds of Georges Bank in the Atlantic Ocean 247 nautical kilometres south-east of Cape Cod.

The overnight run would bring *Fair Wind* to Georges Bank by 6 a.m. After that they would be hauling their traplines for a good part of two days. All seemed snug and serene.

Then on Saturday morning, 34-year-old deckhand Ernie Hazard was jolted awake. The boat was plunging heavily through a screaming gale. Hurriedly he joined skipper Bill Garnos and crewman Dave Berry in the pilothouse. They had already flooded the lobster tanks to try stabilizing the boat. Hazard and crewman Rob Thayer lashed down all gear on deck. The wind was now out of the north-west. It was too late to turn into the teeth of the storm and try to run back towards Cape Cod. Reducing speed, they ran against the seas, but the waves were enormous and *Fair Wind* was plunging deeper into the troughs.

The first people on shore to discern the magnitude and intensity of the storm building in the Atlantic were the staff of the US Coast Guard in Boston. At 4.30 a.m., a report was received that a 23-metre dragger was sinking in heavy seas.

At 6 a.m. came a report that another fishing vessel was in serious trouble with bow damage. Two more reports of sinkings followed.

The Boston centre crackled out orders for coast guard vessels to aid the stricken boats, and for helicopter crews at the air station on Cape Cod to begin a rescue mission. At 8.15 a.m., the dragger was reported to have disappeared beneath the waves, but its crew was rescued by a coast guard cutter.

That morning winds had reached at least 130 kph. Their fury, combined with the shoals and turbulent currents of Georges Bank, produced towering steep-walled, breaking seas such as most fishermen never see in a lifetime. Ernie Hazard guessed them to be 18 to 21 metres high. As the *Fair*

CONDENSED FROM YANKEE (NOVEMBER 1981, DECEMBER 1981), © 1981 YANKEE INCORPORATED, DUBLIN, NEW HAMPSHIRE
ILLUSTRATION: AUSTIN STEVENS

Wind fought its way up the slope of one gigantic wall of water, another wave broke and spun the boat around. Caught on the face of the wave the *Fair Wind* hurtled into the trough. As her bow buried itself in the sea, the stern shot skywards. In seconds the boat turned upside down.

Struggling to Survive. Ernie Hazard found himself underwater in icy darkness inside the pilothouse. His head broke out into a pocket of air and he breathed in deeply. He saw a dim light and swam towards it, desperate for more air. He bumped hard on a metal doorway and then suddenly emerged, gasping and choking, in the sea beside the overturned boat. He had surfaced on the windward side and the boat was blowing away from him.

I've got to make it to the boat, he thought. Spying a floating bucket, Hazard overturned it to trap the air inside it. Clinging to the bucket, he kicked and body-surfed down the next wave towards the boat. As he reached the hull, he was astonished to see an orange raft bobbing on the far side.

It was an all-weather raft which had inflated when the *Fair Wind* overturned and was now attached to the hull by a line. The raft's bottom had a capacity of 1,315 kilos of water designed to keep the raft stable in high winds or heavy seas. Within the enclosed canopy was space for six men.

Hazard battled around the hull to the raft. There was a small door in the canopy and he pulled himself inside, hoping to find his crew mates, but the raft was empty. Hazard was shaking from shock and the cold water. He was wearing only soaking-wet jeans, socks and sweat shirt. About an hour passed without any sign of his shipmates. The hull seemed to be sinking. Fearful that the raft would be pulled under, Hazard loosened the line.

As the raft drifted swiftly away, giant seas hurled it from the crests to the troughs, tipping it wildly. Then a mammoth wave picked up the raft and turned it completely upside down. As the submerged canopy filled with water, Hazard groped his way to the door, swam to the surface and climbed on the ballast bag. He glimpsed a hole that had been ripped in the bottom of the ballast bag and thrust himself down inside it. He was crouched down in water, but at least he was away from the terrible wind.

Relentless Seas. Another wave rose beneath the raft and heaved it right-side up. Hazard was again in underwater darkness, inside the ballast bag. When he tried to swim free, he found that his sweat shirt was trapped. Battling with his last breath as the bag filled with water, he tore off his sweat shirt. Kicking and swimming, he wriggled out of the hole in the bag, swam to the surface and crawled back inside the canopy. He found himself up to his knees in water, naked to the waist.

Locking his hands in the straps in the canopy's wall, he told himself, *So long as this thing floats, I'm going to hang on!*

Relentlessly the seas tumbled the raft, spun it, buried it, and sent it careening from crest to trough. Hazard was like a man going over Niagara Falls in a barrel. Tons of water smashed over the canopy's arched roof and surged in and out of the door hatch. But the raft continued to float, and Hazard hung on.

In the coast guard's Boston centre, the situation was reviewed at 11 p.m., on Saturday. Crewmen from two sunken vessels had been rescued and two other disabled boats were being escorted to shore. No other ships were reported missing.

Out on Georges Bank, the wind had dropped, but the raft was wallowing in tremendous swells. Sorting through the raft's survival kit, Hazard found six small tins of freshwater, a tin of high-protein biscuits, a tin opener, a small air pump for the raft's air chambers, and a small plastic case of flare cartridges. Secured to the canopy outside the door of the raft was a coil of heaving line and a small, blunt-nosed knife.

Hazard opened a tin of water and drank slowly. He also allowed himself one protein biscuit. He dared eat no more because he had no idea when he might be rescued. He guessed that wind and current were carrying the craft south-east, towards the edge of the Gulf Stream. Although it would be warmer, it meant that he must be nearing the edge of the continental shelf, and the chance of being sighted by a fishing vessel was slim. He also realized it was likely he was the only one who knew the *Fair Wind* had sunk.

Search-and-Rescue Efforts. Hazard concentrated on keeping himself busy. With the tin opener he punched holes around the door, and after scooping and bailing out most of the water with his hands, used some of the heaving line to sew the door shut and keep out wind and water. He massaged his legs and feet, which were numb and blue from the cold water in which he had been kneeling and sitting, and decided to rest until dark. He would stay awake during the night and if he heard an aircraft or a boat he would fire a flare.

He was aroused by an ominous hissing. A damaged valve in the base of the raft was leaking air and the inflated arches that supported the canopy were sagging. He seized the pump and began forcing air into the valve. The arches reinflated but now behind him another valve was leaking. It became clear there would be no time for sleeping. He would have to keep pumping one valve, tying it off, then pumping the other. There was no longer any feeling in his swollen feet. As he busied himself keeping the raft afloat and scanning the skies for planes, he thought about his missing friends.

THE *Fair Wind's* owner, Charles Raymond, was at home on Sunday when his phone rang.

"Charlie," said Grant Moore, skipper of the fishing vessel *Broadbill*, "I am out on Georges. We've been in a bad blow. Have you heard from your boat?"

It was the first inkling Raymond had that the *Fair Wind* might be in trouble. Quickly he notified the coast guard. In Boston, coast guards found themselves swept up in a new search-and-rescue effort. But Sunday passed with no sign of the *Fair Wind* and Boston was convinced that the boat had been lost. The search for survivors had to get underway quickly because in late November nobody can last very long in that cold water. At dawn a US Navy patrol plane joined the search.

PEERING out of his raft on Monday morning, Ernie Hazard saw the skies clearing. He was alone amidst the long swells of the Atlantic Ocean. He was finding it difficult to move his legs, and he was too weak to pump air much longer.

Dimly he became aware of the drone of an aircraft, and craning his neck out of the canopy door, he saw an aeroplane. He seized the cartridge flare kit and pulled the firing pin, praying it would fire. There was a sharp pop, and a red flare, trailing some smoke, shot skywards.

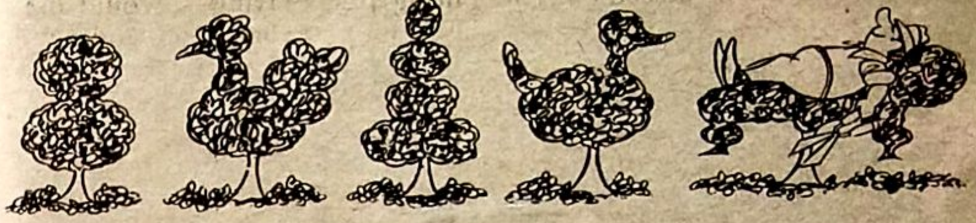
Had they seen it? Hazard could not tell. He fired again. This time he saw the wing of the aircraft dip, and it came thundering low over the waves to drop a smoke buoy. Soon there were other planes circling the area, and one of them dropped a string of orange marker buoys. As the raft drifted close to one, Hazard picked it up. Inside was a message: "If other crewmen aboard raft, wave."

Deep anguish overcame him. It confirmed what he had been putting out of his mind for two days: he was probably the only survivor.

Within three hours he was picked up by a coast guard cutter where he was buried in blankets and revived with mugs of coffee and hot food. Just before 3 p.m., a coast guard helicopter winched Hazard aboard and he was taken to a hospital where he was treated for scrapes, exposure and dehydration. In time he would make a complete recovery.

THE *Fair Wind* is believed to lie in water nearly three kilometres deep. Its three crewmen join the legions of fishermen lost at sea.

Life's Like That



ONE OF our drivers, a college student hired for the summer, was on his way to pick up a load of dairy products, when, at a particularly sharp curve he rolled the truck into the woods, dented the roof and wounded his pride.

The truck was rescued, the roof pounded out and the truck given a bright new paint job. The paint was barely dry when the boss decided to make the "milk run" himself and promptly rolled the truck into the woods on the same curve. It landed neatly upright and without a scratch. As we gathered at the scene, he paused and then announced, "If you're going to roll one of my trucks, *that's* how I want it done." —D.J.E., Canada

ANNOYED at the birds eating our apples, my father put a scarecrow in the orchard. To make it look realistic, he placed an opened umbrella in its hand. Next morning we looked out of the window to see the birds under the umbrella, sheltering themselves from the pouring rain—and still enjoying the apples! —T.D., Ireland

I WAS obliged to undergo a mastectomy last year. Although I recovered quickly—I was back at work within three weeks and was feeling very good about myself—I felt the need to discuss the surgery with my husband. Hesitantly, I broached the subject one evening, mentioning the change in my physical appearance and suggesting that ". . . if you ever have a change of feeling because I'm not all here. . ." He effectively put an end to the conversation when he remarked, "If I had wanted someone who was all there, honey, I wouldn't have married you in the first place." —S. R.

I WAS WAITING at a bus-stop with a number of other women and one elderly man. As the bus approached, the man stepped back, allowing the women to enter the bus before him. One woman, about to board, turned to the man and said, "You certainly are a gentleman. Chivalry is not dead!"

Replied the man, "Wrong bus."

—R.M.S., Canada

WHEN MY father was the magistrate at Caledon, we lived in the Residency and every Friday a band of convicts, with their guard, came to polish the floors, clean the windows and work in the garden.

One Friday, my sister's kitten got caught in the top branches of a tree and could not get down. Its pitiful mewing was too much for the kind-hearted guard. "Hold this!" he said, handing his loaded gun to the nearest convict, and climbed up the tree. He returned the kitten to its grateful owner and calmly took his gun back from the passive convict.

—Mrs E.E., South Africa

DRIVING home with a friend late one Saturday night after a church rally I screeched to a halt when a somewhat tipsy man stepped out into the road. The man jumped back, and, as we set off again, my friend wound down the window and gave him one of the gospel tracts we had been handing out at the rally. "Which one did you give him?" I asked.

"The Brevity of Life," he replied.

—A.B. Fulton, Scotland

MY HUSBAND, who can't bear to throw things out, looks forward to cleaning the garage with all the enthusiasm generally reserved for major surgery. Recently, he left an immense box of junk for the next garbage pick-up, but I was certain he'd sneak some of the discarded "treasures" back into the garage. To forestall this possibility, I tacked a note on top of the box: "Touch any part of this, and I'll break every bone in your body."

On garbage pick-up day, I found the container untouched, except for a scrawled message from the garbage van driver: "You win, lady. I'm non-violent."

—S.W.C.

OUR FAMILY had gathered around the television to witness the arrival in the United States of Pope John Paul II. As we watched the Pontiff step from the plane and symbolically kiss the ground, my 80-year-old aunt turned to me and confided, "I know just how he feels. I hate to fly, too." —V. S. S.

ADA TOLD us how she watched her newly retired husband re-arrange the contents of all her kitchen shelves.

"Didn't you try to stop him?" one of their friends asked. "Didn't you *say* something to him?"

"No," Ada said calmly. "I just waited until he had finished. Then I went down to the basement and re-arranged his tools."

—D.B.

WHILE I was waiting at our local veterinary hospital, an elegant elderly woman came out of the surgery with her nervous pointer. He kept winding his leash around her legs while she tried to write a cheque. We had to suppress our smiles at her comments: "Do stop it, Charles. Don't be ridiculous. Charles, this is going too far. Really, Charles, behave yourself!"

Finally, she snapped her handbag shut and said firmly and clearly, "Now, let's pull ourselves together and try to walk out of here like two decent human beings."

—M.S.

Eternal Sandalwood

BY HUGH AND COLLEEN GANTZER

Its very name conjures up the sweet, timeless mystery of its fragrance

IN OUR childhood, we begged our *ayah* for a bedtime story, and she spoke of sandalwood. "In a dark jungle, deep in the heart of Hindustan, is the kingdom of the great *nag rajas*, the king cobras," she began, as we shivered with delight and horror.

"And why do writhing *nag rajas* live there?" she asked, her voice dropping as she came to the story's climax. "Because here, in the Mysore jungle, is a great forest of incense trees—the mysterious sandal—whose fragrance is so overpowering that only the mighty perfume-loving *nag rajas* can withstand it. They guard the trees by hanging in coiling festoons from their great branches." Then, she would smile and add: "When you grow up, perhaps you'll see the trees for yourself."

The magic of the old nursemaid's tale lingered in our minds over the years. And recently we finally saw our first sandal tree, source of the most holy and fragrant wood in the world.

About 65 per cent of the world's sandalwood spreads across Karnataka, formerly Mysore state, its south-western tip covered by the game sanctuary of Nagarhole. One cloudy afternoon, we took a jeep from the sanctuary's creeper-covered rest house, drove past browsing elephants, nervous spotted deer and snorting wild boar, and then entered a shaded clearing. A breeze ruffled the short grass and scudded the clouds behind a ten-metre-high, dark-leafed tree.

"That's a 20-year-old *Santalum album*, or sandal," said our guide from the Karnataka Forest Office, pointing to the tree that resembled a leggy rain or beech tree.

"But we thought they were perfumed," we exclaimed, disappointed.

"They are," he replied. "But the perfume is locked up, and no one really knows why it's in this strange and mysterious tree."

Religious Rituals. Pursuing the exotic sandalwood trail, we drove to the Sandal Research Centre in the state's capital, Bangalore, where we met senior research officer Radha Nayar. "Oddly enough, sandalwood oil, or santalol, is a waste product," explained Nayar. "The tree doesn't need it, and since it has no excretory system like our kidneys, it stores the oil in the dead cells of its heartwood and in its roots. The unwanted fragrance stays in the sandal's heart until somebody uproots the tree and takes out the oil."

Sandalwood is part of an ancient way of life in India. A relative of the mistletoe, the sandal is most probably indigenous to peninsular India, though some authorities feel that it was originally imported from Timor, Indonesia. The wood is sacred to both Parsis and Hindus. Most Hindu religious rituals use it in one or more forms. Typically, in southern India, its traditional home, every orthodox Hindu housewife weaves the sandalwood ritual into her daily worship. After her purificatory morning bath, she sits before the images of her gods in the home prayer room and puts a few drops of water on a special sandal-grinding stone. Then she rubs a pencil-long stick of sandalwood on the wet stone and grinds the tip into a fine, yellow paste. With the heady fragrance filling the room, she daubs a little paste on the heads of the idols, then marks her own forehead and throat with it, while she chants prayers. The day has begun well.

Beside the sacred and symbolic, many Indians believe sandalwood has wide-ranging medical and cosmetic uses, though Western science has not fully investigated these claims. Sandal powder is used as a body talcum, its paste as a skin conditioner and mild antiseptic. "For high fever, give the patient sandal paste mixed with water or milk," advises a journal of the Karnataka Forest Department. For migraine, the sufferer should apply sandalwood paste to his nostrils: "There will be a flow of water from the nostrils and the headache will decrease."

Dreaded Disease. At the Sandal Research Centre in Bangalore, plant scientist Sivrama Krishnan showed us a nursery where rows of young sandal trees sprout from plastic bags containing earth. "When the seedlings are ready for transplanting," said Krishnan, "we plant them near a host tree because the sandal is a partial root parasite that finds it difficult to thrive on its own. Sandal saplings, however, can sustain themselves even on grass roots."

No one knows how the sandal's roots search out their hosts in the earth, but they can reach out for up to 30 metres before making underground contact with a host tree. The sandal's roots absorb lime and potash directly from the soil, but on touching the host, they grow organs called *haustoria* that pierce the host's roots and suck out life-sustaining nitrogen and phosphorous. Being slower growing than other trees, the sandal never kills its host.

When cultivated in large groups, the sandal tree is gravely endangered by the mysterious leaf-shrivelling spike disease. Though this disease is infectious and believed to be viral, its cause has not yet been fully established. Currently scientists at the centre are trying to develop resistant strains of sandal to combat the dreaded disease. The Karnataka government has also taken steps to preserve the tree. A 1969 law makes every sandal tree state property, and it prohibits cutting a live tree; only dead ones can be removed. These conservation measures, however, have sent prices soaring: from Rs 14,000 per tonne of sandalwood in 1976 to Rs 30,000 today.

No wonder then that poaching takes the biggest toll of the dwindling sandalwood reserves. Poachers bribe local villagers to fell and stack the precious wood near isolated jungle trails; then, using stolen vehicles, they come at night to pick up their precious contraband. To get past government check-points and conceal the telltale fragrance of the chopped logs, they hide them under fish, onions or even garbage.

Gentle Bulldozers. To discourage its employees from filching logs, the Karnataka Forest Department keeps track of every

Shepherdess—a wall-plate

bit of sandalwood from forest to factory. Officials enter the steaming jungle after the monsoon and mark and list all the dead trees. Because most of the sandal oil is in the roots, the trees are never felled, only uprooted.

This is where the trained elephant takes over. The *mahout*, seated on his giant mount's neck, grunts commands as the gentle bulldozer, using trunk, tusks, forehead and its entire weight, does the work. The elephant knows exactly how much force to apply. Pulling, pushing and tugging with slow, implacable precision, it eases the sandal tree from the waterlogged earth, shakes free its vast network of roots, and then allows it to crash to the ground.

Generally 30- to 40-year-old trees are uprooted, and they vary from 12 to 20 metres in height and from 40 to 60 centimetres in girth. All portions with at least 2.5-centimetre heartwood will be used in the sandalwood industry. First, the roots, trunk and useful branches are cut into transportable sizes and are numbered on the spot, before being trucked to the nearest depot. There they are reassembled like a giant jigsaw puzzle to match the sketch of the tree prepared earlier by the forest officer. When all is in place the pieces are weighed and stacked.

In the sandalwood depot at Tarakeri, near Bangalore, we saw workers first stripping the bark, which has no fragrance, from the white sapwood. Then the sapwood was carefully chipped away to reveal the valuable heartwood. Chips that are a mixture of heartwood and sapwood are ground to a coarse dust and used to make *dhoop* incense cubes, more fragrant and costly than the slim *agarbattis*.

An artisan working on an intricately designed sandalwood box

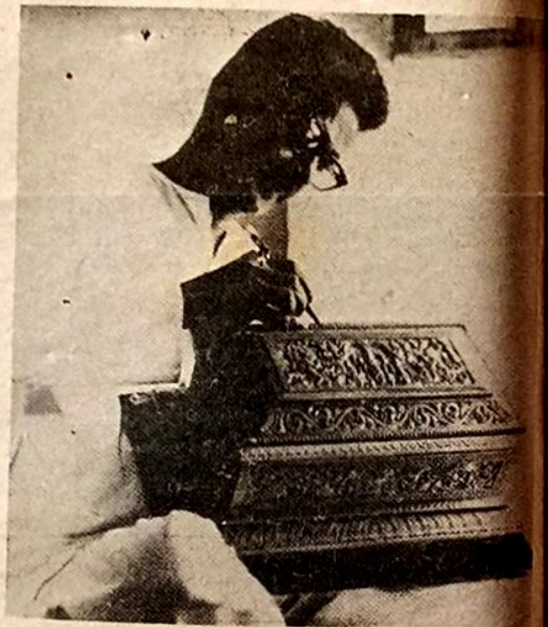
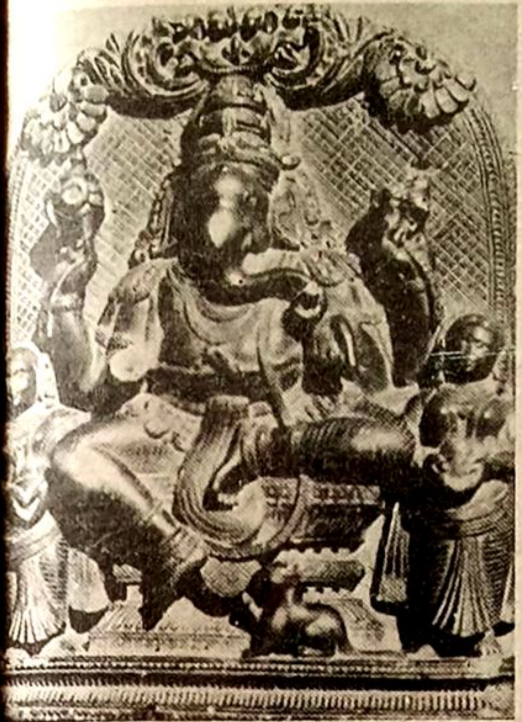


PHOTO: COURTESY KARNATAKA STATE GOVERNMENT, DEPARTMENT OF TOURISM



SHIMOGA MUSEUM/T.S. MAHALINGAM

Ganapati in black sandalwood

Mysterious Aura. The heartwood, when freshly cut, is pale ivory in colour, but exposure to the air eventually darkens it to brown. With its uniform fibres and close grain, it is excellent for carving, so the choicest lot goes to the artisan co-operatives in the traditional sandalwood carvers' towns of Sagar and Sorab in Karnataka. There, artisans turn the wood into intricate gods and goddesses, which may command as much as Rs 13,500 apiece. Simpler 25-centimetre figurines can be had for about Rs 600. "Always buy the darkest wood," a carver advised us. "It contains the most oil and will retain its fragrance for generations. But keep it wrapped in cloth," he cautioned, "because heat and wind dry the oils. And whenever you want to renew its perfume, rub it with your hand to release the fragrance."

Oil is extracted from less than perfect heartwood and from the roots. In Mysore, Sandalwood Oil Factory senior chargeman Thippeswamy Mallikarjuna showed us just such a wood-to-oil operation. First heartwood billets and roots are chipped and crushed into a fine powder that is packed into metal stills, each holding two tonnes of powder. The stills hum like giant pressure cookers as steam is forced through them to obtain an oily distillate. After several heating and separating operations, pure sandalwood oil finally emerges. Nothing is wasted—even the spentwood powder is sold to joss-stick makers who turn it into *agarbattis*.

Sandalwood oil is pale gold, like clear honey, and fetches over Rs 1,000 a kilo as it is snapped up by perfumers all over the world. Why is sandalwood so popular a fragrance? Says V. Jayappa, Managing Director of Karnataka Soaps and Detergents Limited, "Every woman wants an unfathomable past, a mysterious present and a timeless future, and these are some of the many gifts of mysterious sandalwood."

THE MOON weeps silver on to the fields. —Carlo Dossi, *Note Azzurre*

The Greatest Poverty Programme of All

BY RALPH KINNEY BENNETT

In his powerful new best-seller, *Wealth and Poverty*, George Gilder celebrates those dreamers and risk-takers who have done more to provide jobs and raise living standards than all the poverty workers and social engineers who ever lived

NICK KELLEY was a capitalist. He had no money. But he had the best capital of all—his own brains, a will to work and an idea.

He was in college when he noticed piles of blank paper—left over from the testing of paper-cutting machinery—being sent to the Massachussets city dump. Nick diverted the paper and worked out how to cut and glue it into rough pads. He printed advertising logos on them and sold them. Then he got into full-size pads and finally, of all things, tea-bag paper.

From there he branched into even more specialized papers, the kind used to make finger-nail-mending tissue for cosmetics firms and the technical types used in the manufacture of micro-processors and semiconductors for the electronics industry. Today, ten years after stumbling across an idea in the local garbage dump, Nick Kelley is not only a millionaire, he is the creator of 200 new jobs.

Kelley's story is just one of those that punctuate *Wealth and Poverty*, author-philosopher George Gilder's inspiring illumination of why capitalism is *the* key to overcoming poverty.* It should have a profound effect on all our thinking—tearing away as it does at the political-economic misconceptions that have burdened people for so long. *Wealth and Poverty*, says Harvard professor Nathan Glazer, "demolishes a host of pieties as to the causes of poverty and the conditions that overcome it."

Dreamer and Doer. Gilder's book is most of all a celebration of the entrepreneur, that dreamer and doer who risks everything, including those most valuable capital resources—brains, work and time—to make things happen in an economy.

The entrepreneur, of course, doesn't think about "the economy" or "the job picture." He leaves that to pencil-nibbling economists, because he's too busy bringing his "baby" into the world—an electronic calculator, a better copying machine, a new way of doing an old thing.

In the process, these risk-takers, have done more to provide jobs and raise living standards than all the poverty workers and social engineers who ever lived. Entrepreneurs are the dynamic ingredient that make a free economy out-perform a socialist economy even in the worst of times. As Gilder observes: "Socialism and capitalism are not converging at all in their ability to provide food and shelter and higher living standards for their people. The differences between the two sides come not from natural resources or industrial plant but from ideas and attitudes."

Growth, the growth that provides work, that lifts people out of poverty, is not dependent upon the natural riches of the earth or the inherited riches of family. "Throughout history, from Venice to Hong Kong, the fastest-growing countries have been the lands best endowed not with things but with free minds and private rights to property.

"Two of the world's most thriving economies (West Germany and Japan) lost nearly all their material capital during the Second World War and surged back by emancipating entrepreneurs," says Gilder.

And so capitalism careens along its merry way, showing up in the most unlikely places, from a Peking marketplace to a Russian "private plot" vegetable garden. It persists, Gilder demonstrates, because it is *essential*. "Capitalism, like the family, is not an institution that can become obsolete or decrepit as long as human societies persist."

But if capitalism is such an essential producer of wealth, why does poverty persist? Gilder at-

*George Gilder's other books include *Naked Nomads: Unmarried Men in America* and *Visible Man*, *Wealth and Poverty*, © 1981 George Gilder, published by Basic Books Incorporated New York, NY.

tacks this question throughout his book, noting that capitalism in this century has seldom had a free hand to transform as it can.

For the last 50 years, he writes, socialists and quasi-socialists, who presume that the world will be better if they can just "distribute" all its goods "rationally," have held sway to varying degrees—in Maoist China, in "the humane socialism" of Sweden, in the booming welfarism of the United States. In their lust to plan everything, to see that everyone gets a "fair share," the egalitarians have forgotten or ignored this vital point: in a vibrant and free society, the greatest single asset is an army of "poor" entrepreneurs on their way to wealth.

Working Harder. Gilder buttresses this point with examples, such as that of Michael Zabian, a Lebanese immigrant who arrived in Massachusetts in December 1969, with a few dollars and even fewer words of English. Purchasing an abandoned roadside store, he rose at five o'clock each morning to drive 150 kilometres into the country buying the best produce he could find. His wife and six children also put in long hours, and the Zabians cultivated customers by keeping their store open later, and giving more personal service than others in the neighbourhood. Within a few years, they were also selling flowers and Christmas trees, jams and jellies, petrol and wine—all in the face of stiff local competition.

Today Michael Zabian owns a mini-shopping centre on his original site, a large men's-clothing store and the town's biggest office building. There is nothing special in all this, notes Gilder. Countless other immigrants "have performed comparable feats of commerce, with little help from banks or government or the profession of economics."

But even as entrepreneurs transform capitalism endlessly from promise to reality, the social planners have held the rhetorical high ground, always portrayed as "caring for" and "meeting the needs of" an aggregation they have increasingly sought to portray as somehow different to the point of being alien: "the poor." This is all the more ironic since, as Gilder says, we are witnessing "the demise of the socialist dream," fallen under the weight of its own failure.

Gilder shows how the US government, through its social programmes, has coached, cajoled and corralled the poor into an invisible slum bounded by a series of damaging assumptions. "The prevailing expressed opinion is that racism and discrimination still explain the low incomes of blacks. This position is at once false and invidious. Not only does it obstruct the truth, it encourages by its essential incredibility the alternate falsehood that blacks cannot now make it in America without vast federal assistance, without, indeed, the very government programmes that in fact account for the worst aspects of black poverty and promise to perpetuate it."

The Impulse to Risk. During the very period of America's last welfare expansion, more than a million legal and illegal immigrants poured into the country each year. "Everywhere they went," Gilder reminds us, "they found and created jobs."

Portuguese and Cubans—in the teeth of a 17 per cent unemployment rate in New Jersey, created a bustling retail district of bakeries and furniture stores, liquor and millinery shops, groceries and restaurants.

Of the tens of thousands of Vietnamese who arrived in the United States, wide-eyed and battered from harrowing ordeals on land and sea, only 18 per cent ended on government aid and hundreds have opened shops, laundries and restaurants.

Gilder does more than preach the work ethic in *Wealth and Poverty*. He argues for change. "The poor choose leisure not because of moral weakness but because they are paid to do so." And just as the income-redistribution policies keep the poor in subtle slavery, so do regulatory and tax policies destroy the tremendous potential—in jobs, wealth, entrepreneurial opportunity—of unfettered capitalism. As it is now, the poor have little incentive to work, and the rich have little incentive to risk their money in investments that could revitalize the economy.

Thus, Americans have taxed, regulated and constricted themselves into a situation where—for both rich and poor—risk is neither encouraged nor rewarded. And yet the secret of economic growth lies in the seemingly "irrational" world of risks. "A society ruled by risk and freedom rather than by rational calculus, a society open to the future rather than planning it, can call forth an endless stream of invention, enterprise and art."

Gilder warns that "the attempt of the welfare state to deny, suppress and plan away the dangers and uncertainties of lives—to domesticate the inevitable unknown—violates not only the spirit of capitalism but the nature of man."

That nature—that impulse to risk everything—has produced new jobs, new ideas, new wealth in incalculable abundance, proving again and again Gilder's contention that the greatest poverty programme of all is a free economy.

◆

NOTHING is more despicable than respect based on fear. —A. Camus

Getting the knot tied can provoke anxiety wherever you live, but when you are a Western journalist in Russia and your bride is a Soviet citizen, the pitfalls can seem *almost* infinite

Our Moscow Wedding Day

By George Feifer

All the world loves a lover, so they say. Well, here I was on a humid August day, putting that romantic generalization to the test. This was my wedding day. This was also Moscow, in 1969. Just how much love did Soviet officialdom feel for a foreigner—worse, a foreign *journalist*—aspiring to marry a Russian girl?

No law prohibits a foreigner from a romance with a Russian, but since there is no place to go in public without being reported upon, meetings inevitably attract the attention of the KGB, the Soviet secret police. (On at least one occasion during our courtship, Tanya was picked up and questioned about our association.) Nor does Soviet law concerning marriage make any distinction between foreigners and local citizens—but the law is almost irrelevant. Soviet authorities change the requirements at will to control who will marry and who will not.

After Tanya and I decided to risk the try I collected a stack of documents—birth certificate, international driver's licence—that had been requested of other foreign bridegrooms I'd known. When I had completed the arduous processes of obtaining official translations of these and submitting them to the Moscow marriage bureau, a bureaucrat wanted evidence that I could support a wife. Twenty shaky days later my income tax return arrived from the United States, and that seemed to do the trick.

No Suit. But our joy was shortlived. Another, more truculent official demanded proof that I wasn't already married. Proving a negative, I knew, was impossible—but Tanya and I refused to give up. We tramped doggedly from office to office. Suddenly, a bureaucrat agreed that I was, indeed, single and the wedding was at last set for 4pm on August 19—the day after my visa would expire. My petitions to have it extended were ignored. Our anxiety soared. I decided to risk criminal prosecution by staying another day. At literally the last minute—late on August 18—my visa was extended for a week.

I was living at the once-elegant National Hotel in central Moscow, opposite the Kremlin. I was fond of the old landmark with its ornate staircases and cracked but polished spittoons, and had stayed there often over the years. The National's employees actually took pride in their work and tried to provide a personal touch.

I was not surprised, therefore, when at 7am on my wedding day, the waitress for my wing entered my fourth-floor room—as usual, without knocking. Setting down my breakfast tray, she scrutinized me critically to see if I was faltering and wished me good luck.

Moments later, "Auntie Anna," the grandmotherly custodian of the fourth floor, telephoned. "Good morning, sweetie," she said in a voice as cozy as a Russian sitting-room. "You are feeling just wonderful today?" For years, she had been scolding me about not being married. Now that the day was here, she considered it a personal triumph.

"I *am* feeling fine, Auntie Anna," I said. "I'll feel even better when I find my suit."

Two days before I had sent the only suit I'd brought to Moscow—a dark one, fit for a wedding—to be cleaned. I well knew how risky this was, but the circumstances had been explained to the cleaners, who had *promised* it would be back the same day—then the next day, then by this morning. Despite a dozen telephone calls, there was still no sign of it.

A Grand Bath. I wanted to buy Tanya the dozen red roses I pictured in her arms on her wedding day. Auntie Anna, beaming at me from her desk opposite the lifts, promised the suit would be back before I was. No taxis were available, so I waved at random to passing cars. The one that stopped belonged to the Ministry of Agriculture. For the standard one-rouble (Rs 14) "fare", its cheerful young driver, one of an overwhelming majority who engages in private enterprise whenever possible, took me to Central Farmers' Market, where I found the most luxurious roses I'd ever seen in Russia. This wild extravagance was a fitting tribute to my bride. As he counted his money, the vendor asked me what good fortune I was celebrating. When I told him, he pumped my hand and added two more roses to the bouquet.

Back at the National, Auntie Anna assured that my suit was *positively* promised for noon. It was now mid-morning, and I decided to shower while I waited. After three minutes, the hot water sputtered and died. Years of Russian experience had taught me to appeal to the highest possible authority. My insistent call was put through to the National's manager, then deputy manager, but neither could be found. When I addressed my problem to their secretary, she replied indignantly: "Why must you wash at this foolish hour and bother the boilers when they are resting?"

The only solution was to go to a *banya*, or public bath. The grandest and gaudiest of all is the Sandunovsky Bath, a pre-revolutionary building, with a marble staircase and elaborate chandeliers. When I arrived the steam room was filled with the sweet, heavy smell of the birch branches with which bathers were flailing themselves. I endured such flailing as long as I could, then I scrubbed myself as clean as I'd ever been and by 1pm I was back at the hotel. It was only three hours until the wedding, only two until I was to meet Tanya. The bearded lift operator solemnly shook my hand. Auntie Anna waved in triumph: my suit was in my room.

Where's Tanya? But it had not been cleaned. On the contrary, it was dirtier and much more crumpled than when I'd sent it out. In desperation, I ran to the fourth-floor laundry room, where there was an iron. The door was locked. Although the chambermaids had supposedly returned from lunch, no one could find them.

Auntie Anna was in despair and begged me to wait while she called her son-in-law: *he* had a dark suit. But it was too late. My taxi was waiting. Putting on a clean shirt and my best trousers. I was heading for the door when the telephone rang: the laundry room was open. Auntie Anna pushed me there along a service corridor. While the chambermaid muttered, reminisced and ironed, a dozen female employees offered me a variety of marital advice. I waited as patiently as I could in my underpants. The suit, still hot when I got into my taxi, would pass for pressed. Someone thrust Tanya's bouquet into my hands and away I sped, only 20 minutes late.

When I arrived at the impressive Palace of Marriages, formerly a private mansion on the once elegant Griboyedov Street, Tanya was nowhere to be seen. No one answered my call to the flat she shared with her mother. Something dreadful must have happened to prevent her from coming.

It was almost four o'clock. I went outside. Pacing the leafy street, I tried to subdue my fear with journalistic routine. I took notes on the surroundings—the card-playing taxi drivers, the weary old buildings with their flaking, yellowish paint, whose air of melancholy seemed to tell me that Tanya and I never really had a chance.

Not far from the Palace of Marriages, I stepped into a courtyard and saw armed sailors guarding a door. Knowing how suspicious Soviet authorities were of a foreigner who approaches any kind of military establishment, I retreated hastily. But before I could turn the corner, two sailors had taken me by the arms and a bear-like lieutenant in a crumpled summer uniform was charging towards me. "You . . . are . . . under . . . arrest," he puffed, "for spying on . . . a . . . restricted . . . military . . . object!"

My Radiant Bride. Ordinarily, the thought of being on the receiving end of Soviet justice would have paralysed me with alarm. But knowing that everything would be lost if I were imprisoned even briefly, I hissed a sharp "No!"

The lieutenant was startled by my belligerence. "The American Ambassador is a close friend," I lied. "I'm going to call him right now."

With the situation slipping from his grasp, the lieutenant tried to sound resolute: "Show me the plans you were sketching in that little book." He studied my notes and saw notations about the street, trees, what wedding music the Palace used and—best of all—my title: *Den Svadbi* (My Wedding Day). He looked at the bouquet of roses. "You mean you're going to be married today?" he asked.

When he learnt that my fiancée was Russian and that the wedding was scheduled for ten minutes hence, the lieutenant threw his burly arms around me, kissed my cheeks three times in the traditional Russian manner and pushed me back towards the Palace of Marriages. "Drink to the bride for me!" he chanted. "Long live Soviet-American friendship!"

Tanya and her mother arrived

as I was approaching the Palace. The taxi they had called had failed to appear, and they had had to wangle a ride from a passing car as I had for my rose buying expedition.

The sight of even an ordinary bride would have been a cause for joy in the circumstances. But Tanya was so lovely that even the cynical taxi drivers put down their cards to applaud. The red roses I handed her glowed vividly against her white dress. I had never seen anyone so radiant.

Inside the Marriage Hall I held my breath while our papers were checked. No irregularities were found. The clerks were almost cheerful, certainly less lugubrious than any I had encountered in a Soviet government office. The representative of the Moscow municipal government who performed the marriage ceremony wore a red sash across her dignified dress. While a large statue of Lenin glowered down at us, she described the solemnity of marriage and the Soviet government's interest in its success. Tactfully she omitted the usual abjuration to raise "a good Soviet family." She congratulated us "officially, in the name of the Soviet state," and wished us "all good things for the rest of your life together."

We were married. I felt immensely proud, immensely happy and overcome with wonder that Tanya was willing to risk so much for a life with me.

GETTING married to a Soviet citizen is no guarantee of having a life together. In fact, almost as many "mixed" couples are forced apart *after* marriage as before. But Tanya's passport was issued swiftly—by Soviet standards. A mere nine months after our wedding she joined me in London, where I was working, and where our son and daughter were later born.

As I write this, the voices of my wife and children are audible from outside our house in the American North-East. More faintly, across all the distance and all the years, I also hear the voices of "Auntie Anna" and the housemaids of the National Hotel, of the rose vendor in the Moscow market and the bear-like lieutenant who hugged instead of arrested me. Wedding days, it seems, *are* special, everywhere.

* * *

Bad Luck

AFTER the funeral of the richest person in the village, the clergyman walked over to a very dejected-looking man and asked, "Are you related to the deceased?"

"No, sir. That's the problem."

—H.D.

THE NEUTRON: Nature's Astonishing Architect

BY K.E. KRISTOFFERSON

This powerful little particle resides in the nucleus of the atom, and holds both great perils and great promises for the future of man

IT'S PART of everything—the plants, the rocks, the water, the air and us. It is the common denominator of creation. From its habitat in the nucleus of the atom, the neutron is one of the building blocks of the physical world. Without it, there would be no nuclear reactions, no synthesis of the chemical elements, no stars and galaxies and no planet Earth—only a cold, dreary universe of pure hydrogen forever lacking the seeds of life as we know it.

The neutron is superbly equipped for its role as one of nature's architects. In size (.0016933 micromicrons) and structure, it is similar to the proton, its companion particle in the atom's nucleus. But unlike the positively charged proton, the neutron is electrically neutral. This seemingly trivial difference gives the neutron a decided edge over its companion in a nuclear shoot out.

A proton fired into solid matter—as a probe, for example—finds little manoeuvring room in the atomic universe. After travelling about two-hundredths of a millimicron it succumbs to electrical forces, picks up a stray electron or two and settles into the relatively quiet life-style of a stable atom.

No such fate awaits the neutron.

Ignoring all electrical enticements, the free-wheeling particle sizzles down the nuclear alleyways at velocities up to 14,500 kilometres a second, an atomic bowling ball scattering atoms in its path like tenpins. The result looks like nuclear chaos. Some nuclei are knocked from under their shield of electrons, becoming deadly ionized bullets. Others absorb the neutron like a plum pit in a bowl of jelly. These "fattened" atoms, or isotopes, may ingest the intruder without any appreciable change in their behaviour. Some, though, cannot cope with the added weight and spew out lethal radiation in an attempt to slim down—a process of nuclear dieting that changes them into atoms of another element. These infinitesimal volcanoes, known as radioisotopes, are among the wonder tools of science and industry.

Dramatic Usage. So far some 1,100 radioisotopes—each with its own unique radiation signature—have been produced through neutron activation. They come in such an assortment—natural and man-made—of chemical and radiation properties that one or more usually can be found for any kind of application.

Radioisotopes, for example, act as tracers by emitting signals that reveal their presence in chemical, biological and mechanical processes often unchartable by ordinary means. They show, for instance, how elements participate in chemical reactions; how fertilizers move through the roots and stems of plants, how food is metabolized by living things.

As direct sources of radiation, radioisotopes are used for everything from measuring the thickness of a ship's hull (by the amount of radiation getting through) to developing superior agricultural products through genetic mutation. Small devices, called radioisotopic thermoelectric generators, use the heat given off by the decay of radioisotopes to produce electricity. They run instruments in weather stations, and navigational buoys located in remote areas. NASA's Voyager spaceships, recent explorers of Jupiter and Saturn, were also equipped with these nuclear power-packs.

The most dramatic use of radioisotopes is the treatment of disease. Lethal "bullets" from radioactive sources, such as cobalt 60, destroy malignant tissues and suppress overactive body functions. Radioisotopes can also identify diseases of vital organs, diagnose brain tumours and measure blood volume.

The neutron itself may soon surpass its radioactive offspring as a major weapon in the battle against cancer. Scientists are achieving dramatic results by bombarding hitherto incurable tumours with beams of high-energy neutrons. For reasons not fully understood, certain types of cancer cells quickly regenerate after exposure to conventional radiation. But these cells are no match for the "hitting" power of the neutron. And for the patient, there is reduced exposure and smaller, more efficient doses.

Important Role. Medical researchers at London's Hammersmith Hospital, a pioneer in neutron beam therapy, report very encouraging results for cancers of the salivary gland and advanced cancers of the head and neck. Similar results are reported by scientists at the Fermi National Accelerator Laboratory near Batavia, Illinois, where more than 1,000 patients with localized cancers have been treated over the past five years with beams of neutrons.

Dr Frank Hendrickson, director of Fermilab's Neutron Therapy Facility says: "The long-term results of neutron therapy are not yet in, and we are still experimenting on many kinds of carcinomas. But we are extremely excited and encouraged by what we are finding."

Another new and important role for the neutron is in the search for fossil fuels. Neutron logging, a process that "handprints" the oil and gas bearing potential of underground rock formations, eliminates much of the guesswork—and expense—of well drilling. As one geologist put it: "The neutron has become the 'dowsing rod' of energy exploration."

When a neutron tangles with an overweight, unstable isotope (such as uranium 235 or plutonium 239), instead of a stable atom, the result is much more explosive. The nucleus, already gorged on captured neutrons, disintegrates (fissions) in a violent burst of energy, expelling some of the neutrons. If enough nuclei are present—a critical mass—the liberated neutrons sustain the fission process in a rapidly multiplying chain reaction. Thus, the neutron taps the prodigious reservoirs of nuclear energy and all its promising but frightening possibilities.

The Horrors. The showpiece of atomic energy—electric power generation—has foundered on the shoals of economic uncertainty, environmental safeguards and public apprehension. Unfortunately, the opposite is true when it comes to devastating weaponry. From nuclear fission and its triggermate nuclear fusion (melting atoms together) have come the horrors of our time—the atomic bomb, the hydrogen bomb and the neutron bomb.

The mystery and wonder of the neutron's powers carry the mind beyond physics and cosmology to the rim of the infinite. The riddle begins with the questions: what is the neutron? Why does it, among the fundamental particles of matter, have such unique properties?

The answers, if they exist, are masked by the vagaries of the neutron itself. It appears to be electrically neutral, yet its movement can be directed by a magnetic field. Inside a nucleus, a neutron is virtually immortal. Outside, it disintegrates after about ten minutes, leaving in its wake an electron, a proton and a neutrino—an adolescent copy of the original that is about as close to nothing as you can get. Break a neutron apart, however, and out spills a bewildering array of sub-subatomic particles called mesons.

Perhaps, as some physicists theorize, the neutron is but the sum total of a democracy of particles, each an infinite subdivision of itself oozing from an empty chamber where no "thing" exists . . . only a mathematical relationship between space and time. Whatever, the innermost chamber of the neutron lies for a while beyond our understanding.

In the meantime, we can use this gift wisely. Or we can perish by it.

⁂

Toothsome

A MERCHANT banker, on a sailing holiday in the Pacific, leaned too far over the rail of his yacht and fell into the water. Seconds later, his friends aboard the yacht spotted the large black fin of a man-eating shark scything through the waves towards the floundering financier. Suddenly, just as the fish was poised to strike, it abruptly changed course and swam away again. The banker climbed back on board, to the amazement and relief of his friends. "What happened?" they chorused.

"Professional etiquette," replied the banker.

—"Observer" in *Financial Times*, London

⁂

Removing Alcohol From Beer

BY A dialysis process similar to that used for kidney patients, beer can now be de-alcoholized without loss of taste. The Chemical Industry Association in Frankfurt reports that the beer is run through a membrane of hollow fibres while a countercurrent of water flows on the outer side of the fibres. The alcohol molecules pass over into the water through the pores of the fibres. The degree to which the alcohol content is diminished depends on the relative quantity and speed of flow of the fluids. During the treatment, the beer is neither warmed nor exposed to pressure or a vacuum, so that colour, foam and carbon dioxide remain practically entirely intact. Another positive aspect is the fact that "laundering" beer also lowers its calorie content.

—dpa

HUMOUR IN UNIFORM

DURING the Second World War, my uncle was the medical officer on board a troopship. On one voyage he had two young doctors fresh from medical college assigned to him and, while they were always respectful, they nevertheless made him feel that in their opinion he was a bit of a back number.

One day my uncle decided to take the morning off and left the two young doctors to handle the sick parade. At lunchtime he found them looking harassed and exhausted, with a waiting line that extended half-way round the ship. Taking pity on them, he told them to go off duty.

Some 30 minutes later, they were astonished when he joined them for lunch looking as cool and immaculate as ever. "But sir," they asked, "how did you manage to examine all those patients so quickly?"

"Easy," replied my uncle, "I had the orderly pass it down the line that the 'old man' was back on the job, and most of them decided that they weren't so sick after all!"

—Mrs E. MacLeod, South Africa

AT A reception held in connection with the annual inter-service rugby championship, Sir Terence Lewin, then First Sea Lord, spoke about the intense traditional rivalry between the army and navy.

He offered a tip on how to distinguish one team from the other on the pitch. "The army," he explained, "wear red shirts so that the blood doesn't show. The navy wear blue," he continued, "for the same reason."

—M.L., England

A NEW SUBALTERN in our unit was walking in the regimental area when a soldier passed him without saluting. Furious at this show of disrespect, the subaltern stopped the soldier and ordered him to salute 100 times.

Meanwhile, a senior officer who'd

watched the encounter from a distance, came up to ask what had happened. When the subaltern had finished explaining, the senior officer smiled. "You're quite right, young man," he said. "But remember, service regulations require you to return every salute."

—Captain P. K. Gupta, Deolali

After the commando training course, we were sent on night manoeuvres to test our newly acquired skills.

On our way back to barracks the following morning, our faces still blackened, four of us decided to stop at a transport café for early morning tea. We swaggered in, feeling like seasoned veterans, but a small boy behind the counter quickly cut us down to size.

"Mum," he shouted, "the dustmen are here." —R.S., England

The flagship of a Naval task force undergoing manoeuvres at sea, signalled its escort vessels to set up a smoke screen. The young commander of the smallest escort vessel, a subchaser, managed to position his ship so that when it released great clouds of black smoke, they drifted right over the admiral's bridge on the flagship. The flagship promptly signalled the subchaser that the smoke was to blind the opposing force—not the admiral.

The next order to the subchaser was "Execute evasive plan Alpha," whereupon the little ship cut sharply across the bow of the flagship, seemingly centimetres from a collision. The admiral immediately and angrily queried the subchaser, "What do you intend to do next?"

The officer signalled back with some chagrin, "Buy a small farm."

—Lieutenant-Colonel T. Rogers

Having received a spate of complaints about lunch being served late in the airmen's mess, the officer cornered the catering sergeant one afternoon. "Sarge," he said, "why the hell isn't lunch served on time?"

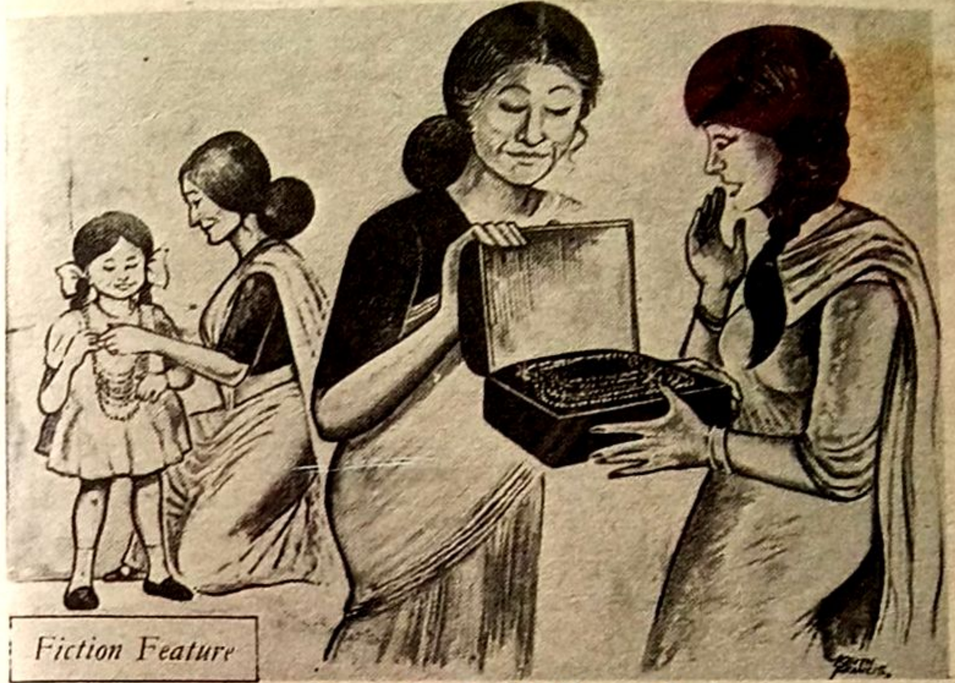
"Not my fault, sir," replied the sergeant, steeped in air force jargon. "The rations reached me today at twelve hundred hours and it's thirteen hundred hours now. How can I get lunch ready in one hundred hours?"

—Flight-Sergeant L.M. Augustine, (Retd), Bangalore

During the Second World War, I won a gallantry award, the Distinguished Flying Medal, after a strenuous period of bombing operations over Germany. The DFM carried with it the sum of £20 to be paid on discharge from the forces.

When the time came, however, the amount shown on the form authorizing payment was less than the promised £20. Stamped across the form in bold red letters was the tax office's explanation: "UNEARNED INCOME." —W.M.J., England

ILLUSTRATION: VINS



Fiction Feature

The Gold Necklace

By Anita Sagar

It was our secret talisman to ward off the fear that threatened to engulf my children

"Widow," in India, is a lowly word, and now I was a widow. In an Indian household, when the breadwinner dies, calamity strikes. But for me the tragedy was denser: I loved my husband. To live without him, I thought, was more than I could bear.

But I had to face life—I had a son and daughter. You can't leave an eight-year-old who is trying valiantly to be a man. Nor can you turn your back on a six-year-old who looks at you with her doe-eyes and comforts, "Don't cry, Mama. I'll bring Papa back for you."

Early one morning, a month after my husband died, my daughter snuggled close to me, her lips quivering.

"Mama," she whispered, "how will Sunil and I go to school now?

© 1982 ANITA SAGAR. CONDENSED FROM FEMINA (JULY 8–22 1982), BOMBAY
ILLUSTRATION: KEITH FRANCIS

Who will pay our fees now that Papa has gone?"

"Why, my darling, I'll pay."

"But, Mama, where will you get the money?" My daughter's logic was relentless. That left me no choice. I went back to my teaching job. However, I failed to see the symptoms of nervousness in the children till Renu came home from school one evening with a fever. She whimpered, but wouldn't tell me what was wrong. Next morning when I offered to stay home to be with her, she became almost hysterical.

"Mama, we are poor, aren't we? We will always be poor now that Papa is not here?"

Now I knew I had to fight the fear that was threatening my children.

Convinced. The day after, I told Renu to come with me, that I wanted to show her something at the bank. In the locker room, I opened the locker and took out a black velvet box. I let her open it.

"Mama, what a lovely necklace! How large and heavy. Is it yours?"

"Yes, Renu. It's mine. But it's also yours and your brother's."

The necklace shimmered in her hands, I put it around her neck, letting the seven long chains hang almost to her waist.

"See, Renu, we have this heavy gold necklace. How can we be poor when we have this?" Now my daughter was convinced.

She must have told her brother. That evening as we sat down to dinner, Sunil sidled up to me. "Why didn't you show *me* your gold necklace? Can't I see it?"

My daughter laughed with glee. "You are a boy. I am a girl." There was a plea in her voice. "The necklace is for me, when I grow up. Mama you will keep it for me, won't you?"

"Of course. But it is also your brother's. When he grows up he can have half of it." My son grew thoughtful for a moment.

"No, Mama," he said. "We will give it to Renu for her marriage."

My child-man had taken a step to manhood.

Four years passed. My son was now 12, my daughter ten. Since my father-in-law was not well, I took the children to spend the summer holidays with their grandparents. One day my mother-in-law called me aside and said, "Indu, I understand you have a very valuable gold necklace. I am so relieved. Your father-in-law was worried about your financial status. Now he can die in peace."

So Simple. That winter Renu wanted to join a dance and music class. It meant an extra Rs 70 a month. I knew my daughter was talented and should be given a chance. To Renu's young mind money was no problem. We were rich—didn't Mama have a fabulous gold necklace in the bank locker?

I decided to take up some tuitions and to study further for my master's. I had to qualify myself to earn more for this extra burden. So Renu joined her dance classes. The years passed and the necklace reposed at the bank.

When Sunil was almost 20 we had a real crisis in the family. He came home one day with his friend Naresh, bubbling with excitement.

"Mama, Naresh's father has won a contract for a large building complex. He can get us a flat in it. Imagine, we won't have to pay rent to anybody for the rest of our lives. We pay Rs 15,000 down payment and the balance in instalments. It's as easy as that."

"But Sunil, we have no money. Where can I get Rs 15,000?"

Even as I spoke, I knew the answer. The gold necklace. What else is it for, if not this opportunity? Later when Renu came home she sided with her brother. "Imagine, Mama, you will be a woman of property."

The only way to gain respite was to say I'd think it over. So I did, till the matter grew stale and gradually shelved itself. The necklace slept on in its velvet box.

One day Renu brought home a young man. Over the months Satish won a place for himself in our lives. And my daughter was married, my little Renu, so afraid of life, so afraid of being poor. The last time she had accompanied me to the locker, she had opened the velvet box, put the necklace round her neck and admired herself.

"Keep it for Sunil's wife," she told me earnestly. "I promised Satish I wouldn't take any jewellery from you. You see, Mama, it's a matter of principle."

A Revelation. Much later, my son came home one evening with a pretty young girl on his arm. Within weeks he was married. Sarita was all a mother would want her son's wife to be.

Shortly before the wedding I took her to the bank and opened the locker. She eyed the velvet box. I lifted the lid.

"My! Isn't that enough to take one's breath away!"

I hesitated for a moment. "Sarita, many years ago Renu needed the comfort of this necklace. Poverty to her was a ghastly spectre, powerful and menacing. So I bought this. It cost two hundred rupees, which was quite a big amount for me. But it served its purpose. The children grew up secure in the knowledge that there was something their mother could lean on. Now they don't need it any longer. But it is there."

As I spoke a heavy burden was lifted from my shoulders. I felt a new freedom, and I knew a sense of achievement.

Sarita looked at me for a while and then said, "I'll let it lie there for *my* daughter." And once again I closed the locker holding the gold necklace.

In the dark, the doubloon-like eyes of this forest monarch will be watching you

THE NIGHT OWLS

By Jonathan Evan Maslow

It was 4.30 on a January morning—moonless, starless, ten degrees below zero C. A friend and I had come to Pelham Bay, a vast, undeveloped area at New York City's limits, to catch sight of the great horned owl, or at least to hear its distinctive hoot, which the poet Thomas Vautor described as "a dirge for dying souls."

We found a dense stand of hemlock trees (one of the owl's favourite roosts), took up our post and waited. Within an hour, the sky turned navy blue, and life began to stir. Nearby, Canada geese cackled comfortingly; squirrels made their first morning chitters. Suddenly we heard the unmistakable bass hoots of the forest monarch, the great horned, returned from its nightly hunt. The squirrels raced up and down the hemlock branches so haphazardly that they tumbled and scampered to keep hold. Blue jays flew to the topmost branches and squawked an insistent alarm.

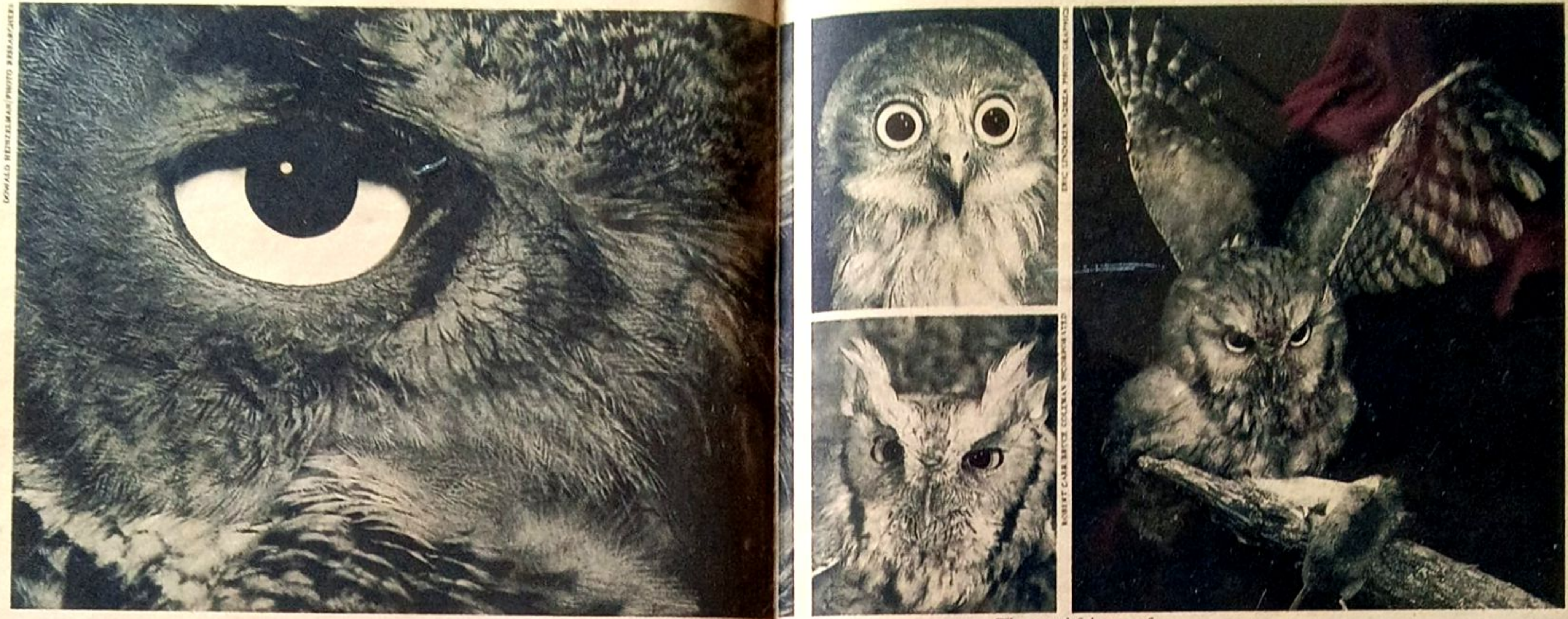
The owl perched in the barren branches of a hardwood tree.

(Above) The snowy owl; (right) an eagle owl in flight

HANS REINHARD/BRUCE COLEMAN, INCORPORATED

CONDENSED FROM GEO (APRIL 1982). © 1982 KNAPP COMMUNICATIONS CORPORATION, LOS ANGELES, CALIFORNIA

PHOTO, LEFT: ROBERT CARR/BRUCE COLEMAN, INCORPORATED.



DONALD HEINTZELMAN/PHOTO RESEARCHERS

ERIC LINDGREN/ARDEA PHOTOGRAPHICS

ROBERT CARR/BRUCE COLEMAN INCORPORATED

[illegible]

The watchful eyes of the great horned owl (left), the boobook owl and the screech owl (centre, top and bottom); a screech owl (right) seizing its prey

Through field glasses we watched this impressive creature, fully 60 centimetres tall, with huge yellow eyes the colour of smoked meerschaum.

The owl's attention was focused on the deeper forest, from which another great horned answered. The calls went back and forth in a willowy, low-pitched code. (Owls have a complex system of vocal communication about which we understand little.) Then casually, effortlessly, the owl glided in over our heads on its tremendous one and a quarter-metre wingspan, made a silent turn around the tree we stood beneath, and returned to its perch.

This is the bird the Bible calls "an abomination among fowl." Spanish farmers considered it a bad omen. But majestically plumed in subtle browns, bays, greys and buffs, the great horned owl is hard to think of as anything but the undisputed champion of North American raptors, the birds of prey.

Perhaps because they have always carried the mysteries of night with them, owls are less well known than other birds. These predators are mainly nocturnal, patrolling forest and field on hushed wings. During the day they seek secluded spots—the corner of a deserted barn or a church belfry—where they roost unobserved, sleeping away the light. As a rule, their sombre plumage blends completely with their surroundings and is nearly impossible to discern against tree bark.

Well before you are near, the long-eared owl has heard your approach, narrowed its bright eyes down to mere slits, compressed its feathers and elongated its body to twice its normal length and half its width, and thrust up its ear tufts. To the casual eye, the owl appears to be just a stump or a dead branch.

The snowy owl, a ground bird of the arctic tundra, wears a handsome coat of white flecked with dusky brown, invisible against snow. Every few years, with the decline of the lemming population that snowy owls rely on for food, the snowies depart from their normal habitat in a forced migration south. Standing on northern beaches and airport strips, they are routinely passed by people who mistake them for patches of snow or windblown newspaper.

The more than 130 species of owl spread over the globe range in size from the plump, sparrow-size elf and pigmy owls to the giant great horned and its European cousin, the eagle owl, whose name suggests its enormousness.

There are about 50 species of Indian owls, most of them crepuscular and nocturnal. Although considered birds of ill omen, owls are a boon to farmers because they feed on agricultural pests like locusts and rodents. They are now a protected species under the Indian Wild Life Act of 1972.

Owls can see with one hundred times less light than is necessary for humans. Their large, forward-facing eyes are designed to peer through near-total darkness. Like humans, owls possess a high degree of binocular vision: each eye views nearly the same scene from a slightly different angle, which is a help in depth perception but a hindrance in field of view. To compensate, the owl has a long and flexible neck that allows it to swivel its head like a radar scanner. In legend, the owl can rotate its head completely and will follow a man circling under its perch until its neck snaps. This is not true, but the swift, flicking return often does give the appearance of a complete rotation. Legend also has it that owls are blind in daylight. Actually, owls see exceptionally well under all light conditions.

Silent Flight. The owl's keen eyesight is combined with unique auditory powers that may be second to none among living things. Its ears, hidden behind the facial disc, are enormous. In some species, one is lower on the skull than the other, the right ear directed upwards and the left downwards. Because of this, each ear receives sound waves at a slightly different time and volume. By comparing the different sounds, the owl forms a precise impression of the horizontal and vertical location of their origin.

A few species, such as the barn owl and the diminutive saw-whet, patrol low over fields and meadows until they pick up the footfall of a mouse or rat. Most owls perch silently on a branch or a stump, waiting for the tell-tale rustle or squeak to inform them that a meal is near. By readjusting its trajectory as the cunning rodent races for tunnel or hole, the owl is directed to its target. Wings that are huge relative to body weight give the owl a buoyancy that cuts down on flapping. The soft edges of its feathers dampen noise made by air rushing around them and assure the owl of silent flight.

Approaching the prey, the owl brings into play its consummate weapons: a sharp hooked beak, and four needle-like talons—two in front and two behind, like old-fashioned ice tongs. It attacks face forward, head in line with the quarry to maintain hearing contact. At the last moment, the head is thrust back, and the talons are lowered like an aircraft's landing gear. The powerful claws rake into the prey, gripping, stabbing, slashing. The beak goes to work.

This specialist among birds takes small interest in nest building. Owls usually occupy the abandoned nests of crows or hawks, or find a suitable man-made structure. The larger owls think little of evicting the current tenants of a nest they covet, and great horneds have been known to oust eagles.

Solitary Habits. Once mated, owls remain monogamous, but they may separate after the nesting season to ply their skills alone, migrating south or wandering to a winter hunting territory, depending on the species. Marriages are resumed the following spring, when both partners return to the familiar nesting grounds.

Owl chicks, covered in soft white down, approach full size within ten weeks. They inform their parents of their hunger with an array of shrieks, grunts, clicks, buzzes, wheezes and snaps. The mother, presumably wearying of the constant demands, eventually moves away from the nest to join her mate at a near-by roost. After four weeks, the parents will usually visit only to drop off the groceries. Nesting owls attack any interloper on their territory, which accounts for the complaints of innocent strollers who are suddenly dive-bombed by an angry owl.

With camouflage and solitary habits, owls have developed ways of eluding, and thereby coexisting with, man. Their seeming obsession for privacy, however, may be working to the owl's detriment. Few studies are undertaken to learn what impact man's alteration of the environment has had on them.

THE OWL watches us more often than we do the owl. Two springs past, when I lived in the country, I sat bolt upright in bed one night, recognizing the freakish bark of the barred owl—whoowwwww! In a flash I was out on the dirt lane by the cabin. A drenching spring rain had passed through, leaving a rolling fog pierced now and again by a sliver of moon. As the owl, far from the borders of its usual hunting domain, repeated its call, I imitated in answer:

"Whoo-owwwwww!"

"Who-who-who-whooowwwww!"

For five pleasant minutes we duetted. Then I felt the familiar chill down my spine as the shadow of silent wings swept overhead and passed away.

Were we challenging or seducing each other? Or were we merely two miscreants, hooting our infernal sorrows into the darkness?

At His Convenience

Although not a member of the club, the Earl of Birkenhead was in the habit of using the toilets in the Athenaeum on his way to the House of Lords. Eventually a porter stopped him in the hall and reminded him politely that the club was for the use of members only.

"Oh," he said, appearing surprised, "is it a club as well?"

—C.B. Dyce-Lavy

Selling Points

From an advertisement for iced tea: "A pitcher of contentment."

Oklahoma City bank sign: "Money talks. We listen with interest."

—Wayne Mackey in Oklahoma City *Times*

From a California "hot tub" advertisement: "Different Soaks for Different Folks."

Sign in a New York delicatessen: "If you feel like a coward, drop in and we'll make you a hero." —L.R.

Advertisement to entice visitors to the zoo: "Watch the local gnus at the Los Angeles Zoo."

Sign in the window of a venetian-blind shop in London: "If it wasn't for us, it'd be curtains for everybody." —R.C.V.

From an advertisement for an elegant crystal decanter: "It never just pours. It reigns."

A nationwide department-store chain advertises its termite and pest-control services: "Tired of the crawl of the wild?"

A Pullover for Sammy

A little girl knitted it to warm a puppet's heart and in return got a gift to last a lifetime

By Peter Scriven

He was my first star. A small wooden puppet about 25 centimetres tall, Sammy had a slightly surprised look on his face, a forelock of painted red hair and a pointed nose that always needed retouching.

In the early 1950s Sammy appeared in the small touring show that began my career as a puppeteer. Originally, I had created him as Pinocchio, but then he became a character in his own right, around whom I produced a series of adventures.

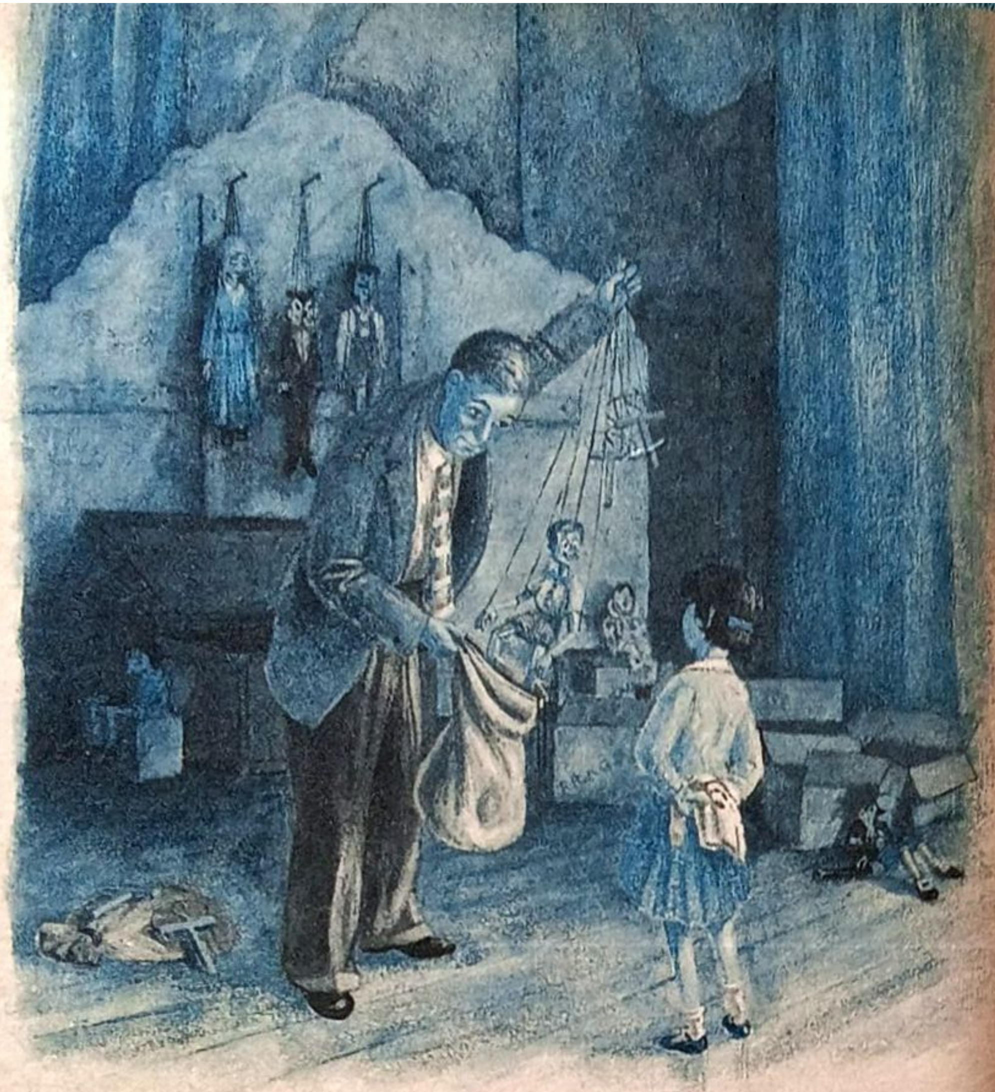
Each year he survived against impossible odds in a new scenario. Shipwrecked, he fought an octopus on the ocean floor and was rescued by a mermaid. As the Sorcerer's Apprentice, he was menaced by ghosts. He always walked hesitantly through his plays because his knee joints were slightly out of alignment and no amount of surgery could correct them.

At the end of each performance, Sammy would climb on to my shoe at the footlights and wave to the children in the audience. Delighted at being acknowledged by him, they squealed with pleasure and waved back. As they left the theatre, I think they were a little sad, not knowing when they might see Sammy again. In those days, we toured the country districts all over Australia. To protect them from the seeping dust of the Outback, I put Sammy and the other puppets in cotton bags, closed by a drawstring.

One cold winter's afternoon, as I was about to ease Sammy into his bag after a performance in

---

Creator of the popular Australian puppets, the Tintookies, Peter Scriven lives in Sydney and the Philippines.



Hamilton, a little girl of about 12 came backstage, alone. Hesitatingly, she stepped through the lighting and scenery boxes until she stood beside me. "He will be cold," she said. "The bag is made from thin material."

I looked at her concerned brown eyes. "It is warm inside the truck," I replied. "There are many puppets there." I placed Sammy's legs in the open bag.

"Wait!" said the little girl. She brought her hand from behind her back. "Here is something for Sammy," she said. "I knitted it myself." In her hand, neatly folded, was a miniature pullover. I took the gift and unfolded it. On the front a tiny "S" was embroidered in blue.

"Now he won't catch cold," the

ILLUSTRATION: BILL LEAR

Ah! TAJ
Taste plus strength
Brooke Bond
Taj Mahal Tea

Rich. Strong. Satisfying. Blended just the way you love it. It's unique —and so we call it Taj Mahal.

Brooke Bond Taj Mahal Tea

HTC-BBI-5222

little girl said.

"Thank you," I said. "What's your name?"

But she was gone, running between the boxes, jumping over the lengths of stage settings, until she vanished behind the curtains.

Company Mascot. That night, in my hotel room, I removed Sammy's strings and fitted the pullover. It was of fine angora wool and the sleeves stretched over his large hands.

The following year, Sammy retired from the stage. For some time, I'd had an ambition to create puppets inspired by Australia's unique fauna—koalas, wombats, possums and kangaroos. Thus, the Tintookies, "the little people who live in the sandhills," came into being.

Their success built the original small touring group into the largest string-puppet company in the English-speaking world. It won sponsorship from the Commonwealth Government, and made overseas tours for the Department of Foreign Affairs.* Sammy now travelled to many countries, but only as the company's mascot. He remained in his bag in the corner of the spare-parts box, and was seldom unpacked, in more than 20 years.

During those years I had less and less contact with our audiences. I became preoccupied with administration, involved in the politics of subsidized theatre and fighting to keep a staff together and employed all year. No longer did I manipulate the "little people," and seldom could I share the excitement of the children seated in the darkened theatre.

Finally, I decided not to produce any more Tintookie shows, but to return to what I had once been, a lone performer with a few puppets I regarded as friends. Sammy was taken out of his bag and repainted, and again we performed in Hamilton. Once more, I was putting Sammy into his cotton bag, when a voice behind me said, "He hasn't aged at all."

"Puppets do not age," I said, and turned to see a woman in her thirties with prematurely greying hair and lined face, holding the hand of a pretty little girl of about ten.

The woman smiled. "You wouldn't remember me," she said. "Once, you gave me something I have never lost. My life has not been easy...," she paused, then smiled again and looked at the puppet. "Even during the worst times I was able to make up a story about Sammy to tell my laughter." Then she looked down at the little girl and said, "This is Sammy."

The woman stroked Sammy's head. Her fingers moved down his neck and paused to touch his worn

---

*The Tintookies have visited India twice—in 1966 and 1967—and performed in most major cities.

thackersey fabrics

COTTON AND BLENDED FABRICS

SINCE 1873
SYMBOL OF A RICH
TEXTILE TRADITION

HINDOOSTAN MILLS
16, Bombay Samachar Marg, Bombay 400 023.

① DRESS MATERIAL
Khadi Printed, 100% Polyester.
② CHOORIDAR KURTA/
DRESS MATERIAL
Polyester Silk Blended.
③ SAFARI MATERIAL
Polyester/Cotton.
④ DRESS/SHIRT MATERIAL
100% Polyester, Printed.
⑤ DYED COTTON POPLIN

Mill's Retail Showrooms at: ☐ 58, World Trade Centre, Cuffe Parade, Bombay 400 005 ☐ Dr. Anandrao Nair Road, Bombay 400 011.

One fly in the soup and the hotel will be better known as
★ ★ ★ ★ ★
"FLY STAR" hotel

Take no chances. Ensure that your kitchens and restaurants are free from the deadly housefly. Protect them today with

PEST·O·FLASH®

(The Electric Pest Exterminator)

You don't build the reputation of your hotels and restaurants merely with five star facilities. That reputation must be safeguarded against food contamination. The housefly that hums around in hundreds is not just a source of irritation, but is dangerous from the hygienic point of view. It is the only flying insect that you must ensure which does not spoil the soup and annoy the customer.

The easiest method to control them is by installing PEST-O-FLASH the electrically operated pest control device.

PEST-O-FLASH unit is composed of 'black light' lure, an 'electrified grid' and a collection tray in an attractive aluminium housing that fits into any decor.

PEST·O·FLASH —from PCI the pioneers in pest control.

pci-marketing

A DIVISION OF PEST CONTROL (INDIA) PRIVATE LIMITED

Mollee-Tolla Building, 504 Linking Road, Khar, Bombay 400 052. Telephones: 542530 – 539116
Regd. Office: Yusuf Building, M.G. Road, Bombay 400 023. Telex: 011-5166 PCI-IN Grams. PESTCIL

Vijay S Padukone Advertising/POF-1/83

and faded pullover. I saw tears in her eyes. And then I remembered.

"I hope he still means as much to you as he does to me," she said.

"Yes," I replied, "he does."

I bent down and picked up the child. Holding her in my arms next to Sammy, I told her the true story of that other little girl, who, long ago, had knitted a pullover for a puppet and warmed his little wooden heart.

Fare Minded

ABOVE A menu in an Asian restaurant in London were the words: "Allah Carte." Alongside someone had scrawled: "Translated, this means—'God, what prices.'" —"Peterborough" in *The Daily Telegraph*, London

THE MENU of a restaurant in San Francisco's Chinatown listed a rare delicacy—Thousand-Year Eggs. An asterisk followed, with a footnote: "30 minutes' advance notice required." —David Rich

Habit Forming

MY TEN-YEAR-OLD son, Bernard, was playing with his friends in front of our house. It was dinner time and I called him. Through the open window I heard one of the children ask, "You going to chow?"

"No," Bernard replied, "I'm going to eat."

I glowed with pride. Instilling the right principles does pay off, after all. *My* son was well brought up, I reflected tenderly. He came in, washed his hands and sat down in his place. "So?" he exclaimed, banging his fist on the table. "When's chow?" —D.E.

WHEN SHE was about five, our daughter Claire had the despicable habit of putting a price on everything we asked her to do. If I said, "Claire, would you please put your toys away before going to bed?" she would answer, "Yes, if you give me a chocolate." If I asked her to get the letters from the postbox, she replied, "I'll go if you buy me the crayons I saw in the bookstore."

One day my husband decided to intervene. "You know it's very bad to demand something in exchange when we ask you to do something," he explained. "Grown-ups call this blackmailing, and blackmail is very ugly."

Claire listened attentively, and then declared, "Okay. If you give me five biscuits, I won't blackmail any more." —G.G.

Vaseline
HAIR TONIC
AND SCALP CONDITIONER

A dry scalp is the beginning of the end of your hair.

Scalp dryness is at the root of various hair problems. Dandruff. Hair dullness. And ultimately hair loss.

That's why you need Vaseline Hair Tonic & Scalp Conditioner. The hair tonic specially formulated to fight scalp dryness.

So pure and rich that just a few drops spread nourishing goodness all over your scalp.

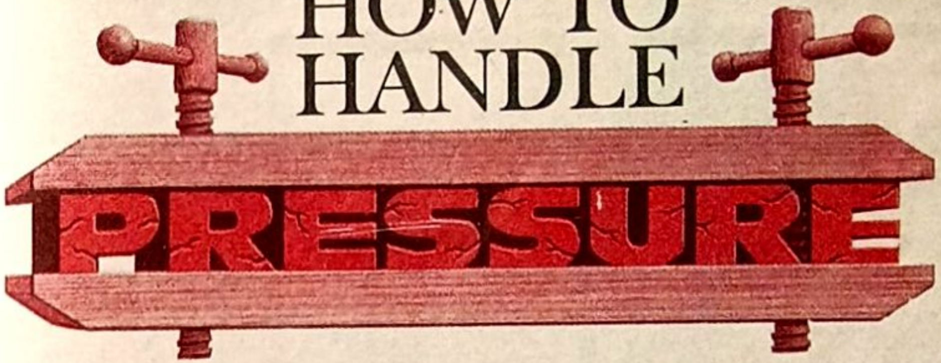
Your hair doesn't look greasy. It keeps looking great...always.

Vaseline Hair Tonic & Scalp Conditioner

Deep down care. For great looking hair.

HTM-PIL-1035A

Practical tips from a leading American TV personality who has learnt . . .



HOW TO HANDLE PRESSURE

By Dan Rather

When Columbia Broadcasting System (CBS), one of America's three national broadcasting networks, announced its successor for Walter Cronkite, veteran anchorman* of the "CBS Evening News," a columnist wrote that Dan Rather was about to step into more pressure than anyone on television had ever known. I laughed.

Now I know what he meant. Maybe it hasn't been the most pressure ever, but the past two years have been a tough learning experience, as the sudden but intermittent pressures of my reporter's life turned into the sustained pressure of the anchorman's. My hair even started to turn grey.

There I was, taking the place of Walter Cronkite, whose face and voice are recognized by almost everyone in the United States. The critics reviewed everything: my hair, my sweater, my seriousness and sense of humour: "He smiles too much!" "Why doesn't he smile?" "He's dyeing his hair!" "No, he's *stopped* dyeing his hair!" Sometimes this struck me as

---

*An anchorman is the person who, in addition to reading the news on television co-ordinates the work of the other TV correspondents.

CONDENSED FROM LADIES' HOME JOURNAL (APRIL 1983). © 1983 FAMILY MEDIA INCORPORATED, NEW YORK, NY

Thousands of families are re-discovering the time-tested qualities of Clove Oil in

Promise
the unique toothpaste with Clove Oil

Isn't it time
you discovered it too?

ridiculous. Other times I got annoyed. And yes, sometimes the faint edges of insecurity crept in.

But pressure is a part of life, not only for me but for everyone. We all perform, and we all hope for approval: the mother bringing a new dish to the table wondering, "Will they like it?" The businessman giving a presentation. The young man just out of college going for a job interview. We all fear that at the decisive moment we won't make it, that we'll let ourselves down.

Looking back at my first year as "CBS Evening News" anchorman, I can see it was a crazy period, but it taught me a few things. Like how important The List is. It's a list of things to remember when times get difficult. Things that I've found useful over the years. I don't offer it as pearls of wisdom, just what's worked for me personally.

It starts with a philosophical approach: don't be crushed if you fail. If you indulge yourself that way, you'll never put yourself in a pressure situation again, and you'll never grow. If you do fail, go back over what happened. Think of everything, including the moment things started to go bad, and why. Work it out. Try again.

Don't change your life radically when you're under sustained pressure or know you're about to be. Don't force yourself to adjust to new people or habits. Don't buy a new house. A pressure situation isn't the time. Wait until things calm down.

You can't survive pressure without the support and honest appraisal of your family and friends. Embrace their help when they offer it. Ask for it if they don't.

I always need someone I can be totally frank with; I also need someone who'll be totally frank with me. I rely on my wife, Jean, my two children and a small but solid group of friends. They're always there with encouragement and perspective, and they remind me that they have their own problems.

Jean, for instance, said when President Reagan was shot, "You're under pressure, that's true. But the doctors working on the President are under even more." Then, with a slight smile: "And remember there are millions of Chinese who don't care what your reporting is like."

A related point: read history. The American biographer Jackson Bate has observed that when we read the lives of the great, we can catch their courage as if by contagion. I think that's true. Read about Lincoln's terrible depressions and playwright Eugene O'Neill's dreadful rages.

Promise
The unique toothpaste with time-tested Clove Oil for healthier teeth and gums, fresher breath
1981 1982
Winner of two Monde Selection Gold Medals

- Helps prevent tooth decay
- Refreshes the mouth
- Prevents bad breath

Healthier teeth and gums.
Fresher breath.
That's a Promise.

CHAITRA-BLS-666

A Balsara Product

Take heart from their fears—and their triumphs in spite of those fears.

Get as much information as possible about what to expect before the pressure starts. A colleague told me my new job would put strains on friendships, and it did. He also said to watch out for time-wasters. When I was a reporter I was a moving target—"Sorry, I'm on my way to Managua." But as an anchorman I'd be a *sitting* target. When the time-wasters descended, I was prepared.

On three pieces of paper I wrote the question: "Is what you're doing now helping the broadcast?" I put one copy in my wallet, one in my pocket and one in my desk. Now and then, in a meeting or whatever, I'll look at one of those papers—it has proved a useful reminder.

Keep it all in perspective. Under sudden pressure, I think, "Calm. Get calm. It's going to be crazy around here for a while." I try to get cool and stay that way. I concentrate and think ahead, but not too far. There's no use inviting fears. You can't control everything around you, so don't try.

Remember, no matter what kind of pressure you're under, the sun will come up in the morning.

An executive I know is frequently under pressure to

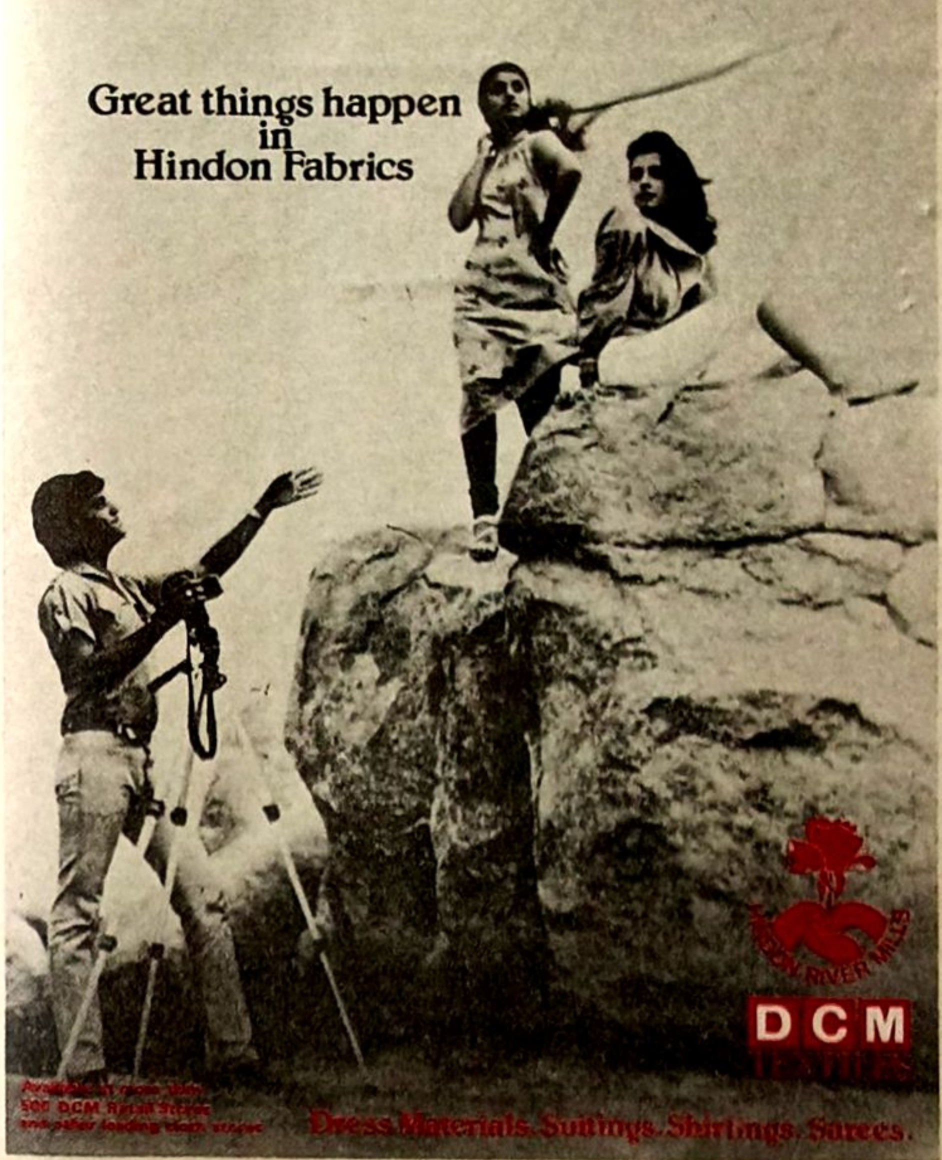
Which one would you like to have?
Amul FRUIT & NUT? Amul BITTER? Amul CRISP? Amul MILK CHOCOLATE?

I'll take them all.

Soft and creamy, like Swiss chocolates ... its creaminess sealed in silver foil ... and foil-board carton to keep it fresh.

Amul CHOCOLATES
A gift for someone you love

Marketed by: Gujarat Co-operative Milk Marketing Federation Ltd., Anand



HINDON

Great things happen in Hindon Fabrics

HINDON RIVER MILLS

DCM TEXTILES

Available in more than 500 DCM Retail Stores and other leading cloth stores

Dress Materials. Suitings. Shirtings. Sarees.

perform well and please his many bosses. Every now and then when it gets to him, he puts his feet up on the desk and reviews what those bosses can't do: "They can't kill me. They can't take away my wife and children, or steal my friends. All they can do is take away my salary. So, if they do that, I'll get another job."

Then he calms down. Sometimes I think the scope of his fears is not quite sane. But his way of handling it is.

Do things that help you relax. I listen to music to calm myself down and to pump myself up. Now and then I'll recall a hymn from childhood. It's "Safe Am I,"* and the words are:

Safe am I in the hollow of His hand.
Sheltered o'er with love for ever more.
No ill can harm me, no foe alarm me;
For He keeps both day and night.
Safe am I in the hollow of His hand.

Have faith. Realize that you need something to believe in—something bigger than yourself, beyond yourself. Whether it's God or Buddha or that there's a higher logic in life—whatever it is, just about everyone needs it. In truth, it is hard to bear up under pressure without the steadying effects of someone's hand on your shoulder.

Also, physical exercise is essential. It distracts your mind. I couldn't handle pressure without running and occasionally playing basketball. Your mother was right: nutrition counts. Breakfast counts. Without it, by midmorning you're not good for much of anything.

Don't turn to alcohol to handle pressure. It gives the illusion of control, but *only* the illusion. The next day it takes its toll, leaving your body—and your mind—weaker.

Finally, remember to use pressure. Wherever there is pressure, there is a chance to do good, to *be* good. Sometimes even a chance to be excellent.

When interviewing the winner at Wimbeldon a reporter never asks, "How did you do that under all that pressure?" The reporter knows what the player knows: pressure *helped* him do it. Pressure served as the spur and the challenge. Pressure makes everything coalesce; without that concentrated moment, hitting your peak is not possible.

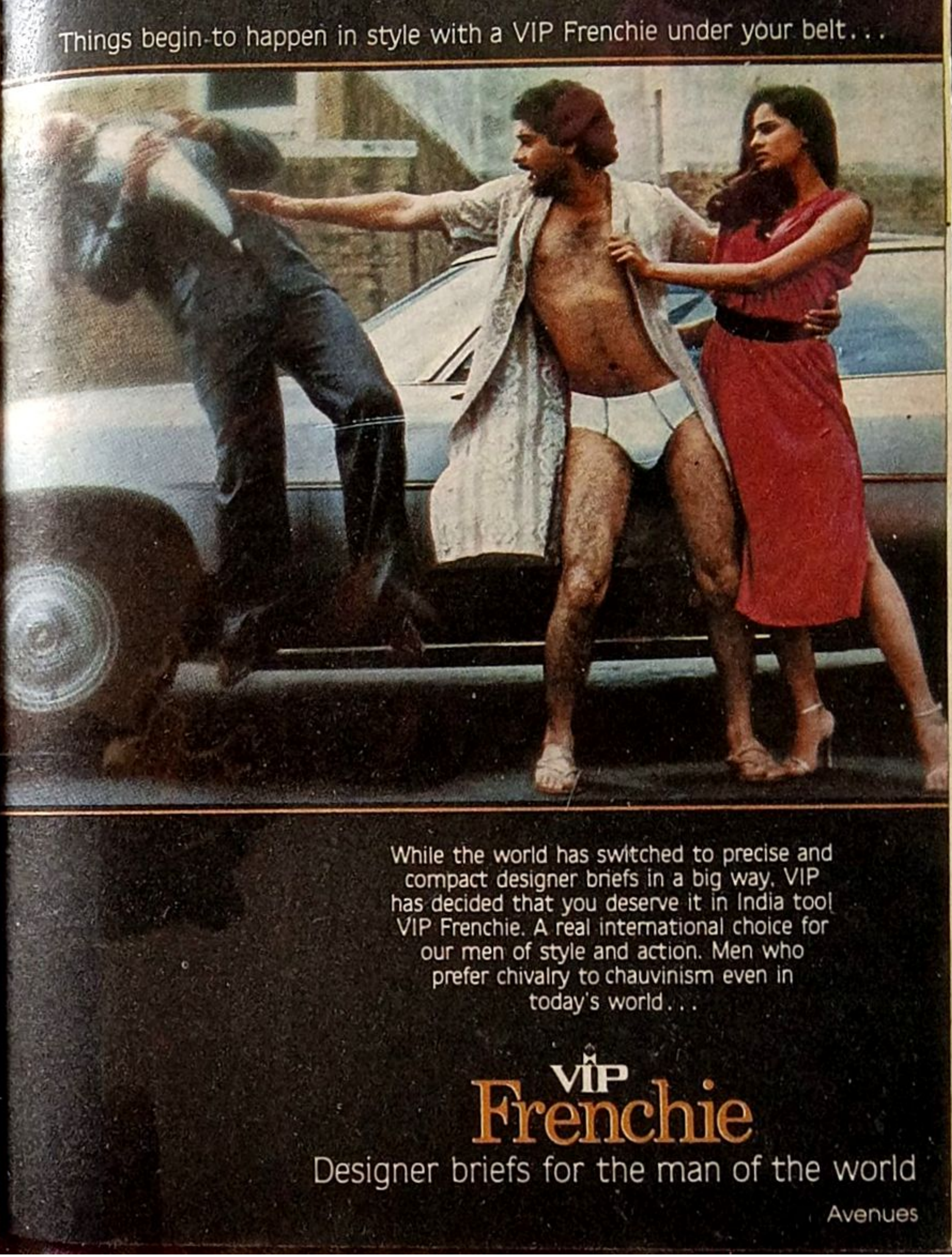
---

*"Safe Am I" by Mildred Leightner Dillon. © 1938 William Dillon.

* * *

New Virus

When my wife returned from a trip to the paediatrician's office with our son, a friend asked her what was wrong with the child. "Oh," she snapped, "it was just another 24-hour, 40-rupee virus." —G.F.M.



Things begin to happen in style with a VIP Frenchie under your belt . . .

While the world has switched to precise and compact designer briefs in a big way, VIP has decided that you deserve it in India too! VIP Frenchie. A real international choice for our men of style and action. Men who prefer chivalry to chauvinism even in today's world . . .

VIP Frenchie
Designer briefs for the man of the world

Avenues

ADVERTISEMENT

Eat Better, Live Better

It's your life. Give yourself a treat, and live it right. You'll love it! So say Reader's Digest editors as they show you how.

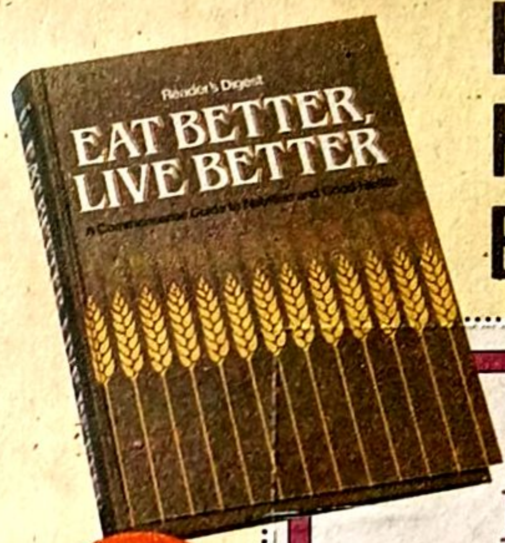
EVERY YEAR at least one new-fangled diet book comes out ... to the blare of trumpets and promises of lost pounds. And because, "hope springs eternal," people buy the books, lose the pounds, regain the pounds and slink back into old eating habits.

Over the years, the books wound up on book shelves. People wound up tense, overweight or with high blood pressure, hypoglycemia or just plain fatigue.

People's confusion was not helped any by contradictory claims made by experts, or by crash diets that crashed faster than they faded pounds.

Reader's Digest editors took stock of the confusion. They did two important things. First, they gathered data. Then they waited for the dust and the shouting to settle. They waited for the cholesterol, fiber, sodium, vitamin and other forces to agree on what was best for you and me... for what was not only good for us, but what we would like as well.

Reader's Digest editors, working with doctors and nutritionists, have now come up with facts and conclusions about delicious balanced diets and how to shop for them... about your fitness in general. These conclusions were carefully arrived at



Be fit! Have energy! Be happy.

Send for it!

- 416 pages big
- A generous 25.5cm × 19.5cm book
- Over 300 illustrations, dozens in full color

- ABC's of Nutrition
- Family Food Guide
- Eating for Good Health
- Special Diets for Special Needs Plus
- 200 Delicious Recipes
- 32-Page Section on "Fitness Through Exercise"

READER'S DIGEST

EXPRESS ORDER CARD

Shop Price: ~~Rs.249.00~~

Direct-by-Mail Price: Rs.239.00

YES! Please send me, by V.P.P. and under the terms of your Money-back Guarantee, EAT BETTER, LIVE BETTER for only Rs.239.00. I will accept the V.P.P. parcel when the Post Office advises me of its arrival. If not entirely satisfied, I may return the book within ten days to receive a full refund.

Name ____________________ (please print)

Address ____________________ (please print)

____

____

Signature (I am over 21) ____________________

HA/I-EBLB-2 S

SEND NO MONEY NOW

Price guaranteed until September 30, 1984. Offer applies in India only. Order subject to acceptance.

READER'S DIGEST

Money-back Guarantee

You always come first with Reader's Digest and your satisfaction is fully guaranteed. This means that if you are not completely delighted with EAT BETTER, LIVE BETTER — for any reason whatsoever — you may return it and we'll reimburse your money in full. For over 60 years, the Digest has practiced this policy and we will continue to serve you as friends with this one aim in mind: You must be entirely satisfied. Otherwise, your money will be cheerfully refunded.

Postage
will be
paid by
Addressee

BUSINESS REPLY CARD

BOMBAY G.P.O.
PERMIT No. BY-S-09

International Book House Private Ltd
Indian Mercantile Mansions (Extn.)
Madame Cama Road
BOMBAY 400 039

No postage
stamp
necessary if
posted in
India

No need to send money now

Low direct-by-mail price

Send card today!

and meticulously checked with some of the best nutrition authorities. And they now merit being shared with you... in a solidly permanent hard-cover book, Eat Better, Live Better. The book is a commonsense guide on health and nutrition.

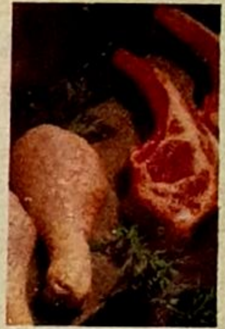
These are things the book has: Straight talk about your family's health and meal planning, the source of nutrients, vital facts about food additives, exercise and weight control, and lots, lots more. Like things you can do to help you feel better all the time. And would you believe there are more than 60 pages of delicious recipes?

These are things the book does *not* have: complicated theories or fickle fads, fast double talk or gimmicks.

In addition, the book helps you select a sensible-for-you exercise program... one that will help you exercise your way to trimness and good health.

Eat Better, Live Better has messages for everyone in the family. Help for on-the-go parents. For youngsters who'll pick up good food habits early. Answers for teenagers and their greater need for nourishing food. Advice geared to help senior citizens get more out of life.

DO CARROTS HELP YOU SEE IN THE DARK?



DOES RED MEAT HAVE MORE PROTEIN THAN WHITE MEAT?

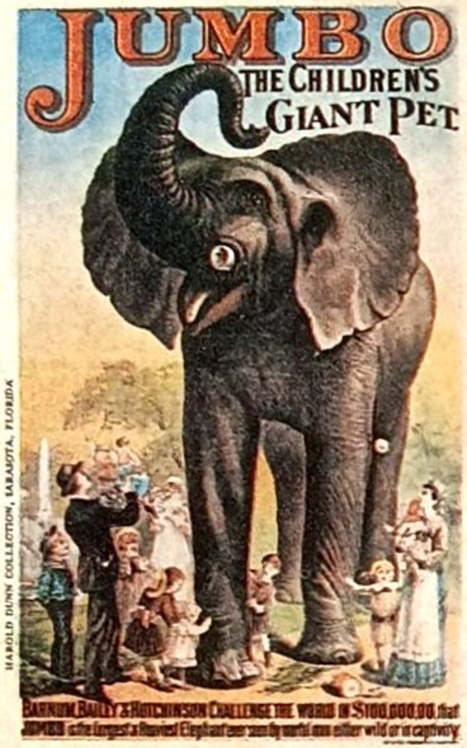
DOES VITAMIN C PREVENT THE COMMON COLD?

DOES SUGAR CAUSE HYPOGLYCEMIA?

In Eat Better, Live Better you'll find a positive approach, and the confidence to make it work. With it you can change your lifestyle, gain in looks what you shed in inches, and add happy, healthy years to your life. That's remarkable return for a small price.

Send no money now. But do mail the postpaid Order Card today. We'll send you the book by V.P.P. for only Rs.239.00. If not satisfied, return it within ten days for a full refund.

If order card is missing, write to International Book House Private Ltd., Indian Mercantile Mansions (Extn.), Madame Cama Road, Bombay 400 039.


JUMBO
THE CHILDREN'S GIANT PET
BARNUM, BAILEY & HUTCHINSON CHALLENGE THE WORLD IN $100,000.00 that
JUMBO is the Largest & Heaviest Elephant ever seen by mortal man either wild or in captivity

HAROLD DUNN COLLECTION, SARASOTA, FLORIDA

Larger-than-life Jumbo towers over enthralled admirers (1882)

WHEN THE CIRCUS COMES TO TOWN

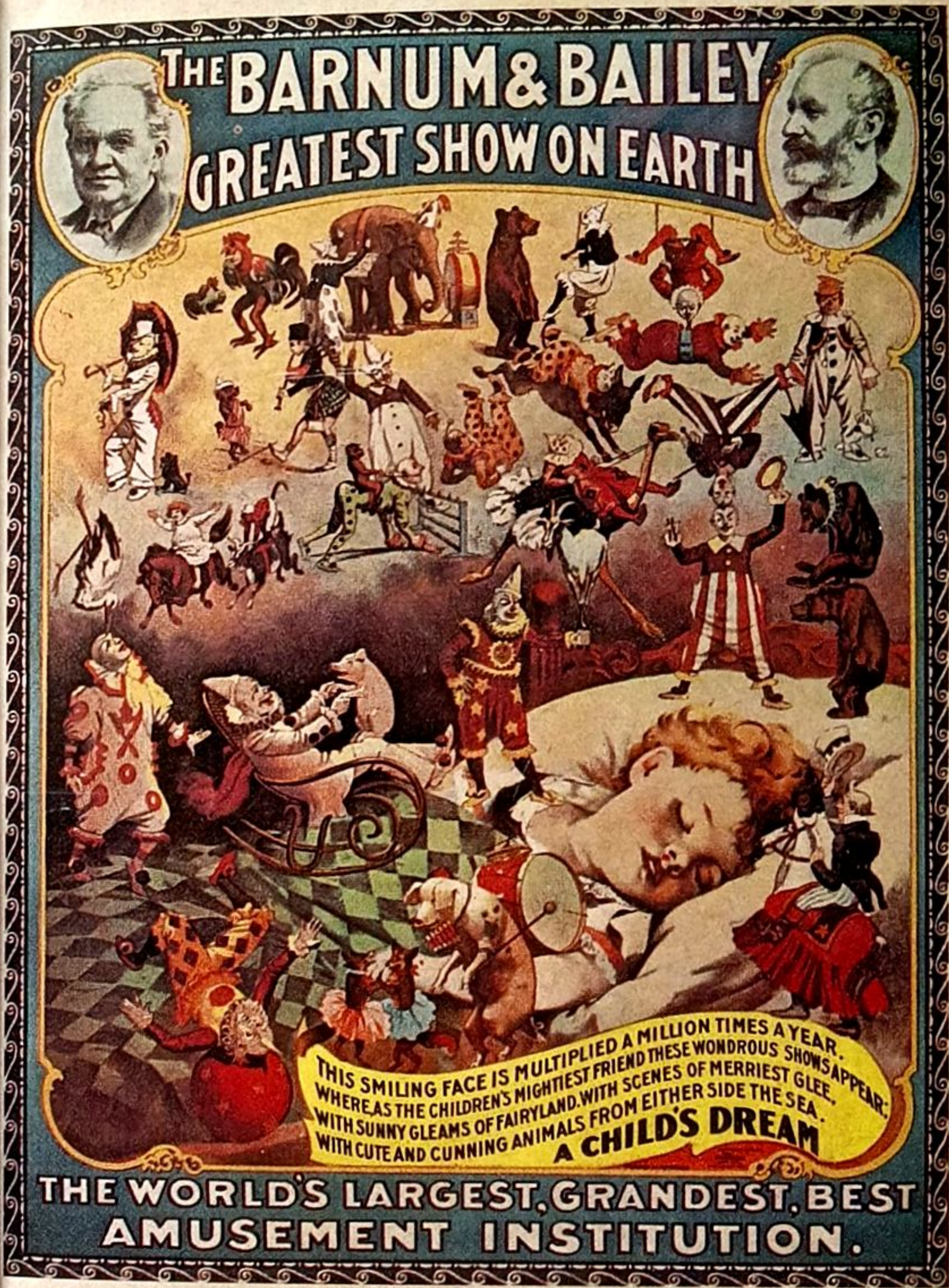
By Jack Rennert

“The circus is a drop of water from Ponce de León’s spring,” wrote John Ringling, head of the world’s largest circus empire. “It takes people back to childhood for two hours and makes them boys and girls again. What they call ‘the lure of the circus’ is really an appeal to the elemental in man. Clowns, elephants, pretty ladies in fluffy gowns riding white horses. That is the circus! If you analyse the acts you will discover that, in practically everything, the circus is playing to the child in grown-ups.

“Circus posters do the same thing. All children love big words and love exaggeration. The boy who sees four dogs in the backyard says there are a thousand dogs out there. When he wants to bet, he always wants to bet a hundred million dollars. He is not striving to deceive, but to explore bigness in his own way.

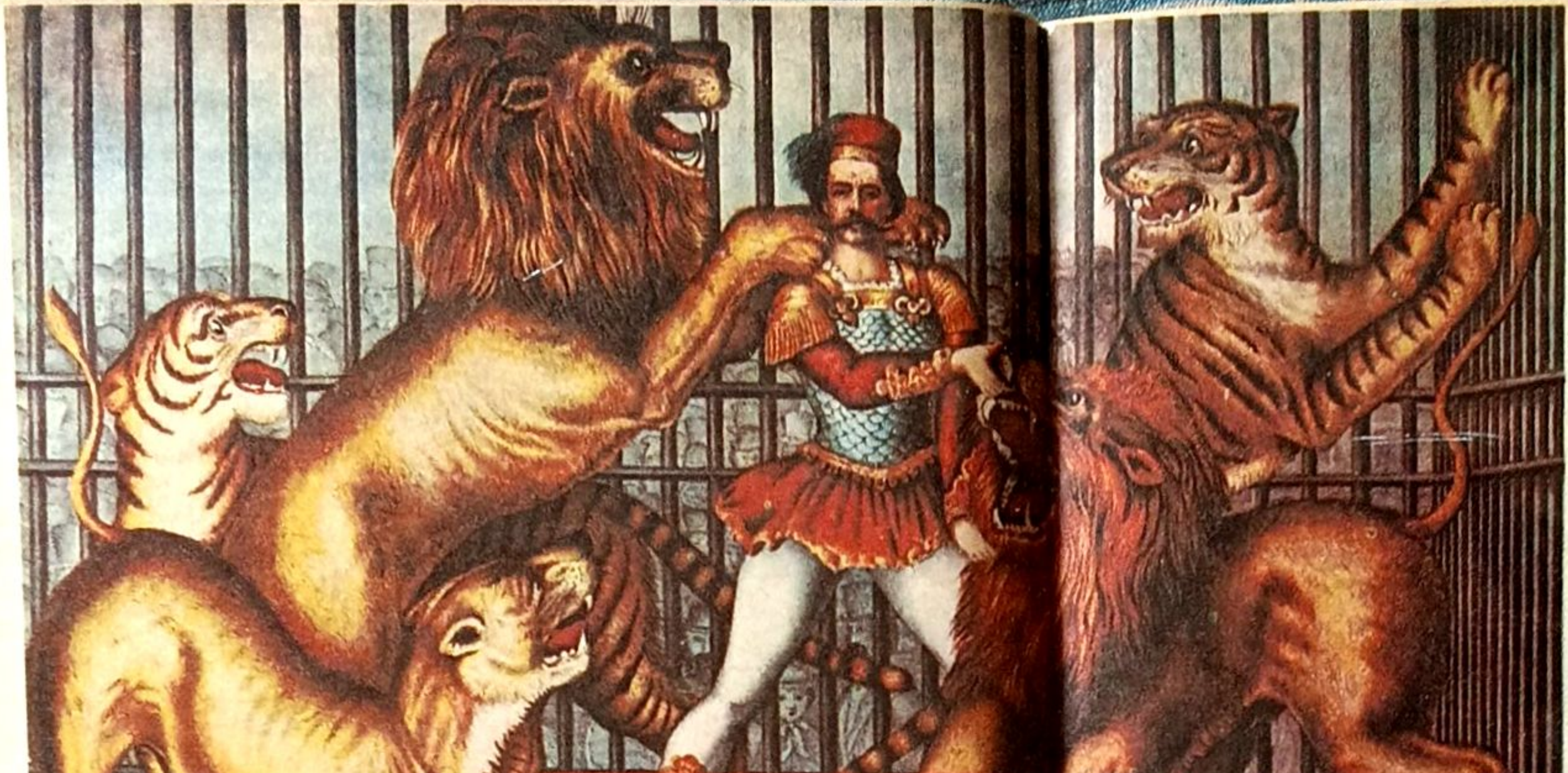
“So with circus posters. There is no effort to deceive the public—but to express the hugeness of everything in figures that carry the idea. If we have 50 elephants and say 100, it pleases rather than offends. On circus day we are children again and we *want* to believe that there are a hundred million elephants in the parade, and a thousand million funny clowns and troops of beautiful

CONDENSED FROM “100 YEARS OF CIRCUS POSTERS,”
© 1974 DARIEN HOUSE, INCORPORATED


THE BARNUM & BAILEY
GREATEST SHOW ON EARTH
THIS SMILING FACE IS MULTIPLIED A MILLION TIMES A YEAR,
WHERE, AS THE CHILDREN'S MIGHTIEST FRIEND THESE WONDROUS SHOWS APPEAR:
WITH SUNNY GLEAMS OF FAIRYLAND, WITH SCENES OF MERRIEST GLEE,
WITH CUTE AND CUNNING ANIMALS FROM EITHER SIDE THE SEA.
A CHILD'S DREAM
THE WORLD'S LARGEST, GRANDEST, BEST
AMUSEMENT INSTITUTION.

CIRCUS WORLD MUSEUM OF BARABOO, WISCONSIN

The stuff that circus dreams are made of (1896)



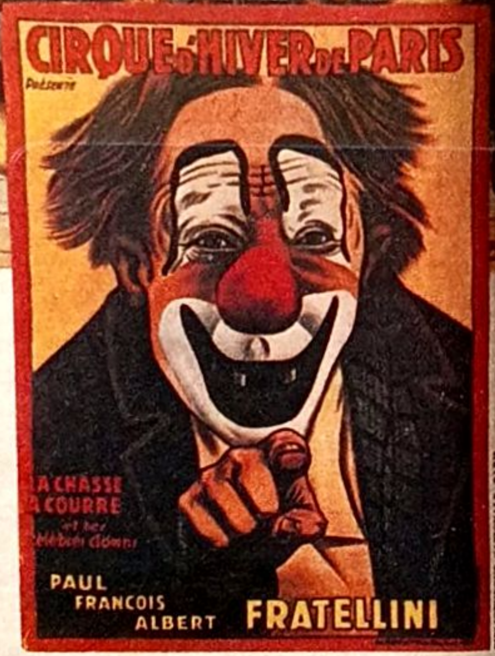
CIRCUS WORLD MUSEUM, OF BARABOO, WISCONSIN

Death-defying feats and exotic animals are part of circus lore and lure. The heroic lion tamer braves the savage beasts before your very eyes in the 1873 poster at left. Almost a century later, an elegantly stylized design, below, evokes the same anticipatory delight

ladies on white horses."

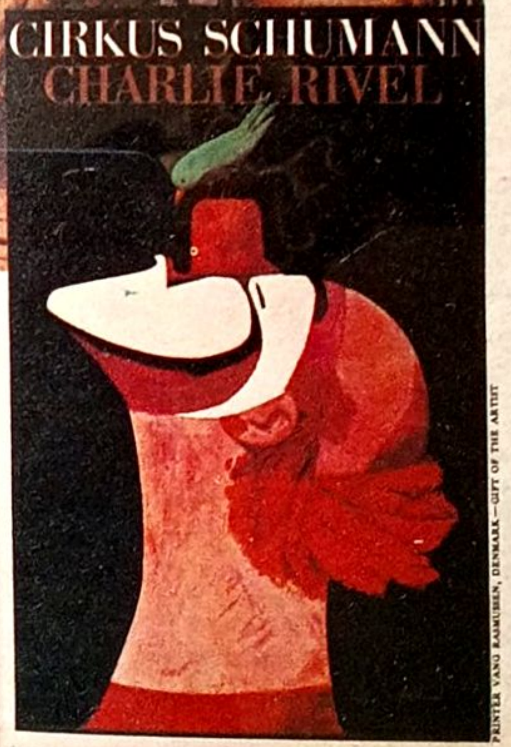
Back in its golden age, from 1880 until just before the First World War, the circus was not just "the greatest show on earth." It was a tremendous educational experience. There was no television, and few zoos exhibited half as many animals as the circus brought to town. Without spending much more than $1.50 (and that included the main show, the sideshow and refreshments, too) the circus-goer could see wonders not available in any other way.

Two or three weeks before a performance, a team of advance men would arrive in the area and, within a 30-kilometre radius, put up from 5,000 to 8,000 circus posters. They would be hung in



BIBLIOTHEQUE NATIONALE, PARIS

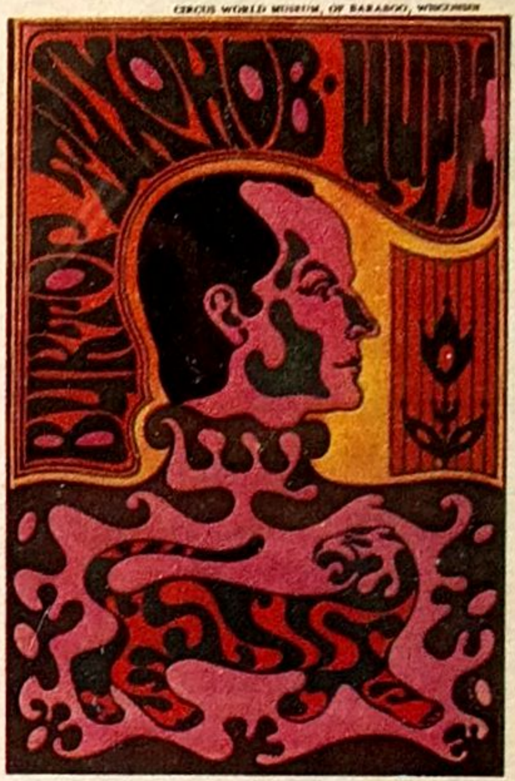
That favourite of children of all ages invites you to a 1930s circus



PAINTER VAGN RASMUSSEN, DENMARK—GIFT OF THE ARTIST

The show's the thing, for a crowd of thousands or an audience of one (1967)

CIRCUS WORLD MUSEUM, OF BARABOO, WISCONSIN



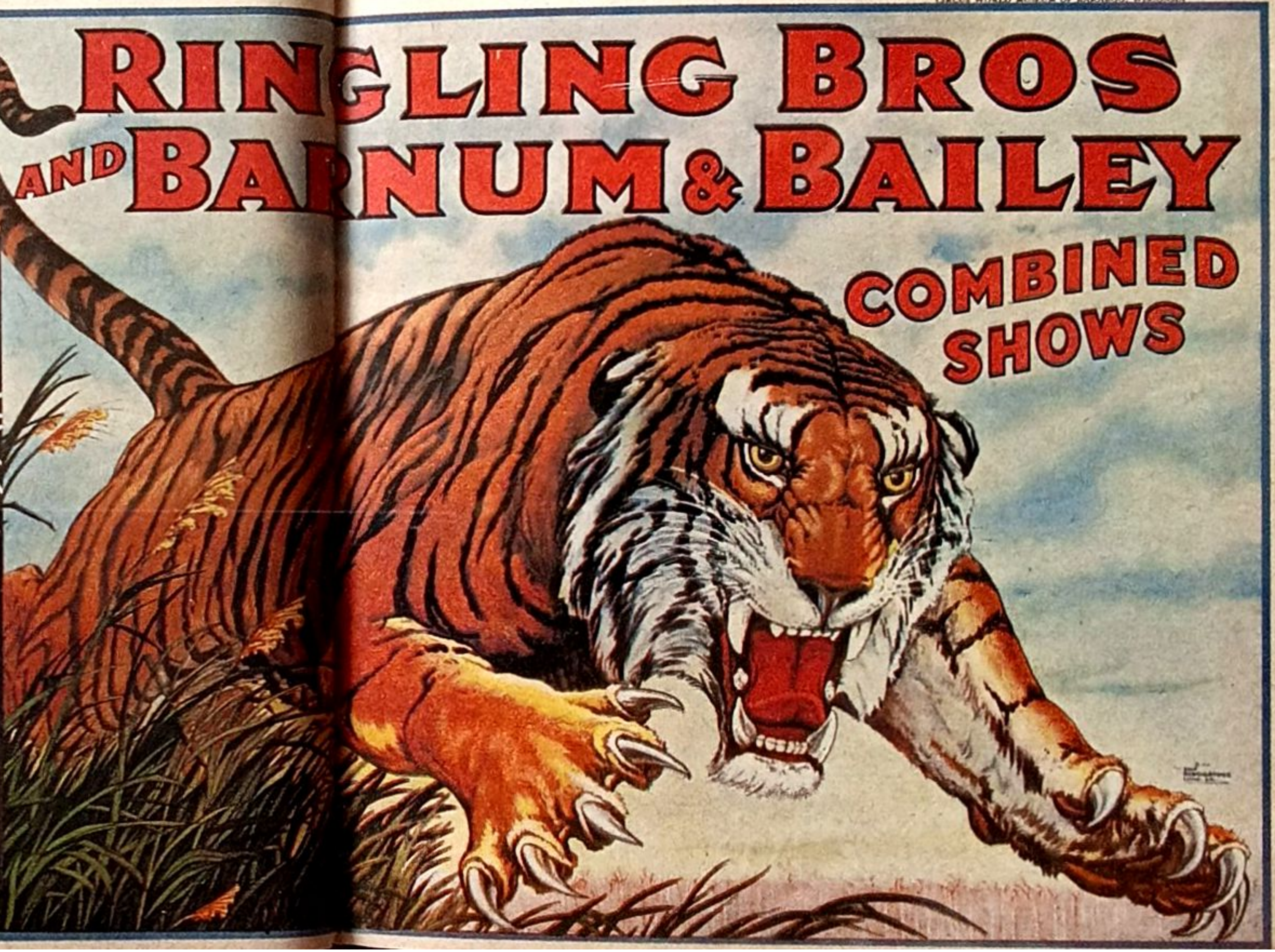
windows, or slapped on barns, buildings, boards or stands. No other industry so thoroughly used posters and hoardings. In fact, the circus industry invented the hoarding industry.

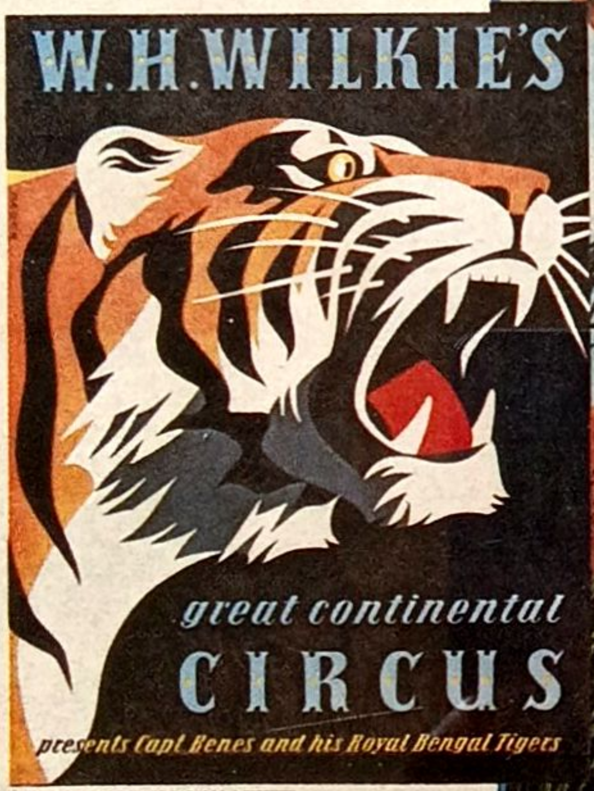
There was no more effective way to reach the public. For when the circus came to town, it was usually for one day only. It would put up a tent, parade around town, put on a show in the afternoon and one in the evening, fold up, and then travel that same night to the next town to do it all over again. There was no time for word-of-mouth advertising. The circus got only one chance to arouse, immediately and completely, the people who were to see it. The poster had to tell the story.

What of modern circus posters—the Russian, the Danish, the South African posters seen here, for instance? How do they relate to their gloriously gaudy predecessors? Very directly. Although they are so very different from each other artistically, all that has really changed is time. The problem is still the same— to remind us of the fun and the frolic, and to fill the seats of the circus arena with eager children of all ages.

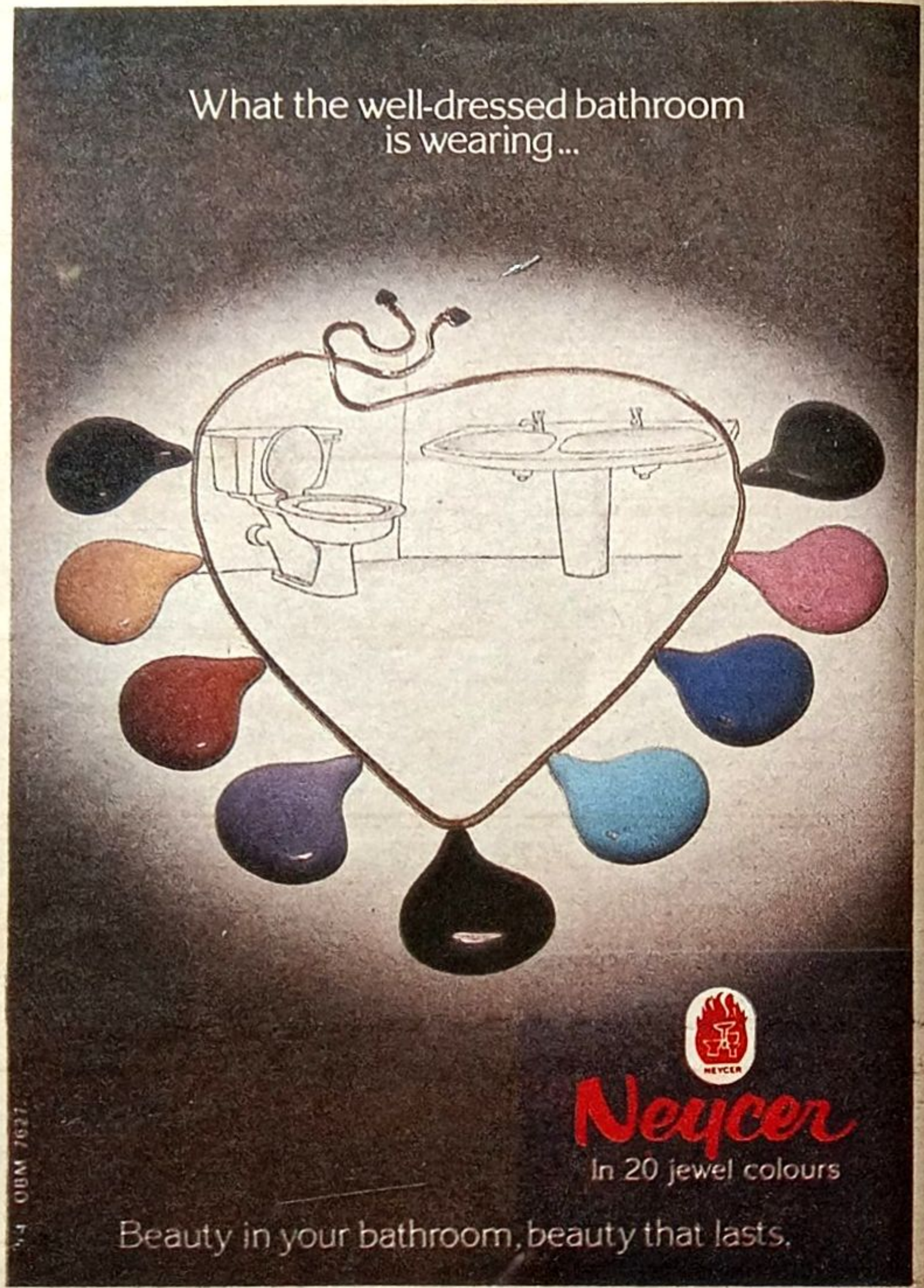
First used in 1915, the tiger at right dominates what is probably the most famous circus poster of all time. Below, the frightening ferocity is updated in a 1956 South African poster

CIRCUS WORLD MUSEUM OF BARABOO, WISCONSIN




W. H. WILKIE'S
great continental
CIRCUS
presents Capt. Benes and his Royal Bengal Tigers

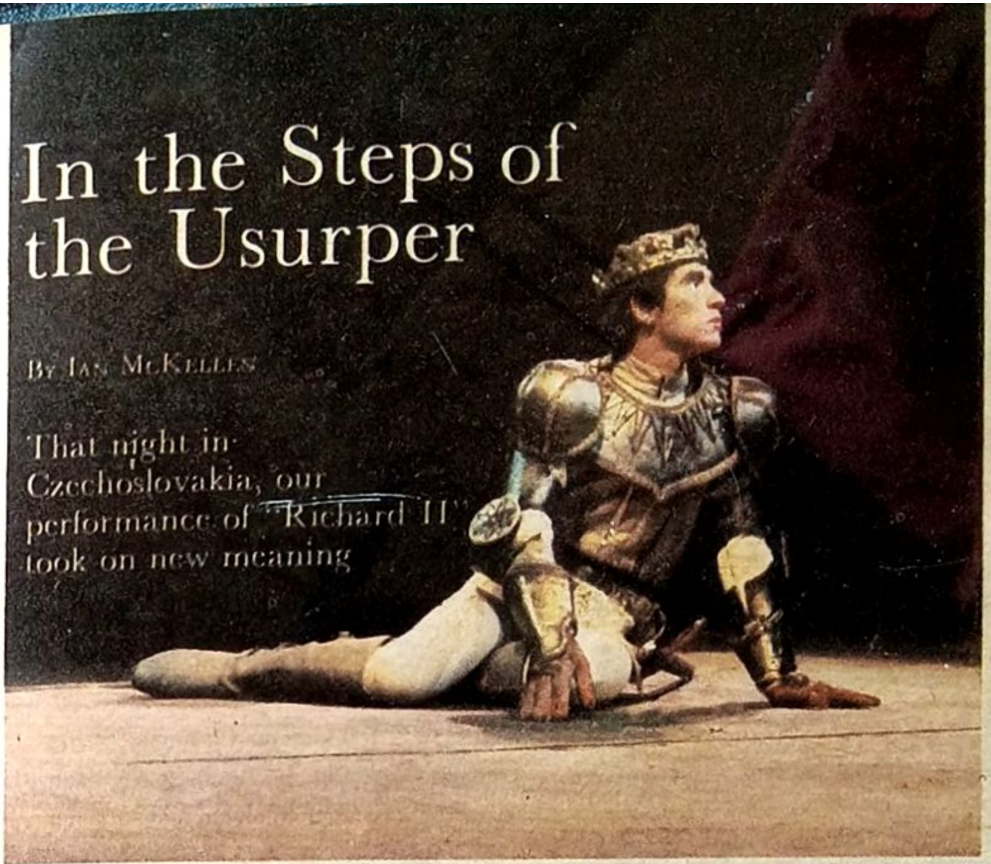
CIRCUS WORLD MUSEUM OF BARABOO, WISCONSIN


What the well-dressed bathroom is wearing...
NEYCER
Neycer
In 20 jewel colours
Beauty in your bathroom, beauty that lasts.
OBM 7627

In the Steps of the Usurper

By Ian McKellen

That night in Czechoslovakia, our performance of "Richard II" took on new meaning



We had rehearsed the play, played it on tour in Britain, revived it for the Edinburgh Festival and at the Mermaid Theatre in London. Then we took it abroad.

This was 1969, when the British Council could more often afford to sponsor large troupes of artists across the world. We went to Vienna and then across the Danube to Bratislava, second capital of Czechoslovakia.

Any play, even one by Shakespeare, even a success, which our *Richard II* certainly was, can pall for the actors who have to repeat it night after night after matinée. Even so, we had no right to be bored with *Richard II* and I, lucky to be playing the King himself, was not. But at least I was *used* to it; believed that I had understood the play fully; that the Prospect Theatre Company had cracked it and could make tragic to a modern audience the dilemma of a medieval king and the medieval beliefs which informed his reign.

I was soon to realize that I had missed the overwhelming truth

---

Ian McKellen is a well-known British actor.

Condensed from "A Night at the Theatre," © 1982 and published by Methuen, London

about the play.

We were briefed by a British Council official: "Remember that Czechoslovakia is in a tricky condition just now, so the service won't be all that good in your hotel, I'm afraid. And your room will probably be bugged."

We were bussed through the Iron Curtain. At the border, delayed by inspections and unnerved by the guns, I peeped through the window of the customs hut and saw, pinned to the wooden wall, a little poster of defiance—an unframed, unsmiling photograph of Dubček. Until some six months previously, he had been the country's leader. Now his springtime of liberalization had reverted to winter. The Russians had invaded.

Czechoslovakia was a prison. The few inmates we met were quietly critical of the new politicians who had been appointed to replace Dubček's supporters. Even the official interpreter shook her head when I asked for a translation of a single word scrawled over the base of a war memorial. "Freedom," she admitted and shook her head again.

Noisy Audience. We wondered who, amidst all these troubles, might want to come and see our ancient play, a foreign tale told in a foreign language. All publicity for our visit had been silenced under the new regime, but somehow word got round and our first night was sold out.

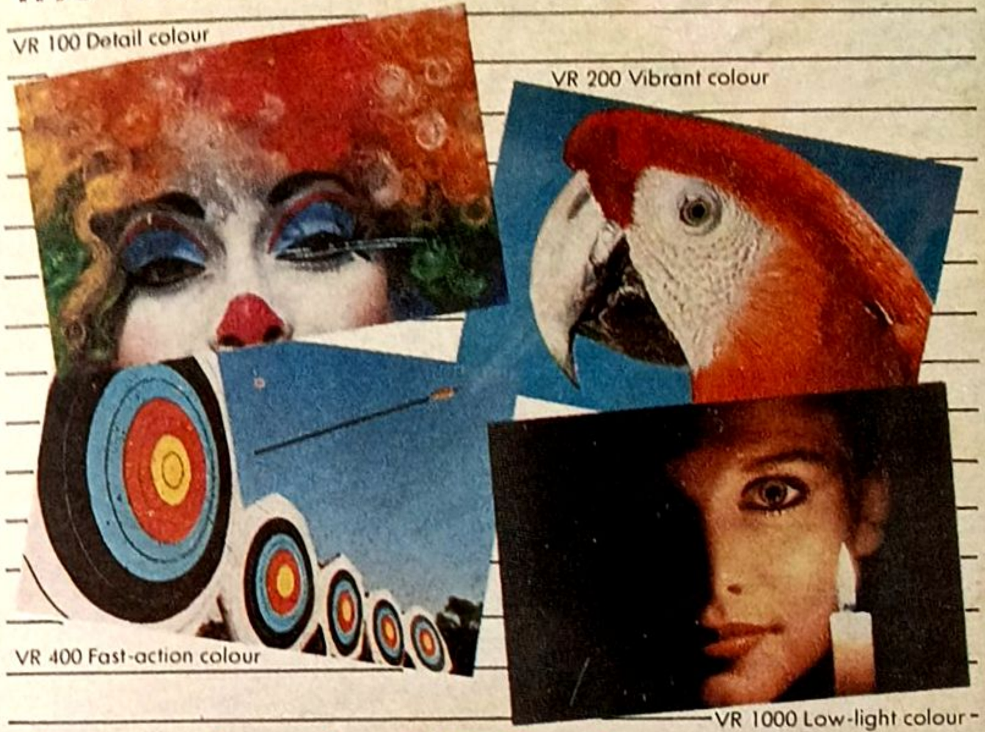
The theatre was not impressive. Perhaps it had been a post-war cinema, for the audience was stretched in one shallow tier across the width of the smallish stage. The Bratislava city officials and their spouses were wedged in the centre of the house. For the rest, the audience was noisy and excited. Most of the women wore headscarves. The university had allowed some students to come in.

On our bare stage we began, under lighting which functioned weakly. The play proceeded as normal, although perhaps a little slower, as we tried to make our foreign English understandable. We reached the moment where Richard weeps for joy to stand upon his kingdom once again.

The King kneels down on the defenceless earth. Down I go in my gleaming armour, my right hand, in its golden glove, reaching out to touch the boards, to touch my country:

"*Dear earth, I do salute thee with my hand, . . .*"
(Tearful, then gaining an urgent confidence.)
"*Though rebels wound thee with their horses' hoofs. . .*"
(Left hand, too, caresses the earth; my head brought closer down to whisper.)
"*Feed not thy sovereign's foe, my gentle earth,*
Nor with thy sweets comfort his ravenous sense . . ."

Now IPC brings to India the four most advanced Kodak films the world has ever seen.

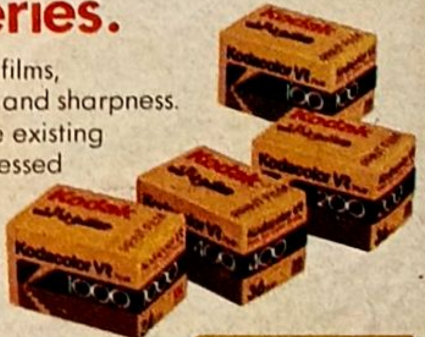


The Kodacolor VR Series.

Meet the family of 35 mm Kodacolor VR films, embodying dramatic advances in speed, grain and sharpness.

The new Kodacolor VR Series of films use existing colour processing and, so, can easily be processed in India.

To ensure that your colour prints are of international quality get your processing and printing done by IPC.



India Photographic Company Limited
Bombay • Calcutta • New Delhi • Madras
PRODUCTS BY Kodak
HTB-IPC-9814

(Do they understand that sweets are flowers?)

"But let thy spiders that suck up thy venom,
And heavy-gaited toads, lie in their way,
Doing annoyance to the treacherous feet
Which with usurping steps do trample thee . . ."

(Can the audience really be getting all this?

They are unusually silent, as if some corporate breath has been inhaled. Will the next sound from them be a sigh of boredom?)

It was less orthodox than that, when it came; the plash, the gasp, the scuffles, the mewing. I have never heard it since; an audience crying.

There will always be some audience somewhere, more perceptive than the actors. They were grieving, I now understood, fool that I had been, because Richard's words could have been their own, when their land was invaded so recently, when sticks and stones had been pelted at armoured cars and tanks, when the earth was their only symbol of a future freedom, of a continuing past.

The politics of *Richard II* remained revealingly modern more than 350 years after Shakespeare wrote it.

As we drove back to Austria we were again halted at the customs post. I couldn't see Dubček's photo anywhere.

* * *

How's That Again?

From a report in the New Zealand *Otago Daily Times*: "The architect said the programme is behind schedule, but how much it is depends on how long it takes to complete."

From the New Zealand *Daily Post*: "The Minister of Trade and Industry saw the rise as a pleasing continuation of the downward trend."

Imagination

A friend of ours, bent on making a mountain out of a molehill in which she lives, refers to the straw mat at her door as the "mud room." A studio couch signals the "bedroom," a tableful of books constitutes the "library," and the cupboard where she keeps her tiny television set is the "media centre."

After reading an article that described an elaborately equipped "entertainment command post," she now has one too. "This," she says as she leads visitors on a tour of her studio, "is my entertainment command post." And she points to the window. *—The New York Times*

If only you could see through some other soaps.

The pure amber transparency of Pears soap shows you why it is different from any other soap you can buy.

Pears *is* pure soap, free from additives that could cause harm to delicate skin.

Pears has no harsh materials, no perfumes which irritate the skin, no artificial colouring or lathering agents.

Your skin is left feeling clean and refreshed but without that 'dried out' feeling.

That is why, after so many years, we still make Pears soap in the same way.

We still use natural oils, pure glycerine and the same delicate fragrances.

We still mature every bar for ten weeks to achieve the essential balance between the various ingredients.

And because we take so much care, you still cannot buy a purer soap.

Some other soaps may be cheaper. But doesn't your skin deserve the gentleness of Pears?

Pears keeps your skin young, innocent

A Quality Product by Hindustan Lever

LINTAS PS 61 1914

Close-up
Close-up
Super Whitening Toothpaste and Mouthwash in One

Close-up is for close-ups

Winter winds and rosy cheeks. The best way to keep out the cold is to cuddle up a little closer. And you're confident because you've used Close-up.

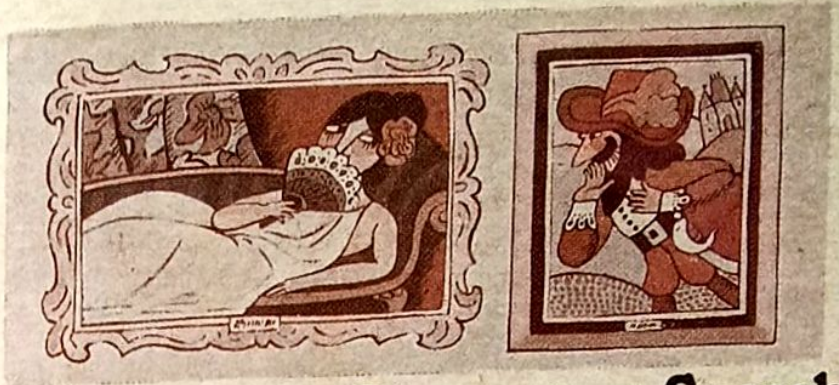
Transparent, red Close-up's two super-whiteners leave your teeth their whitest and its special mouthwash keeps your breath its freshest.

So, smile a close-up smile and stay confident, because after all, Close-up is for close-ups.

LINTAS CX 61 1914

A quality product by Hindustan Lever

The Toothpaste and Mouthwash in One



Towards More Picturesque Speech®

Riddle Grid
Q. What's old, French and overdrawn?
A. The account of Monte Cristo
—M.K.

Q. Where would a shellfish sue for damages?
A. In a small clams court —O.M.N.

Punny Money
Electric bill: futility rates —D.K.

Fund-raising for charity: the alms race —C.P.S.

Food costs: vittle statistics
—R. Cvikota in *The Wall Street Journal*

Oil stocks: portfuelio —N.C.

Answer Me This
If it's such a small world, why does it cost so much to run it?
—*Chicago Tribune*

Why does a heated argument create a chilly atmosphere? —*IEA News*

Why is it that when you have a choice of chocolates and bite into one, it's never the right one? —Helen Castle

How come night falls but day breaks?
—*Time Out, England, quoted in Catholic Digest*

The Site of It
Stratford-on-Avon: bard sanctuary
—Susie Hillyer

United Nations building: world tirade centre
—Frank Tyger in *The Wall Street Journal*

In a Word
One of the hardest jobs for a parent is making a child realize that "No" can be a complete sentence —Earl Wilson

Repartee is what a person thinks of after he becomes a departee
—Dan Bennett

A pseudonym is a nym that is not your real nym
—John Bailey in *The Saturday Evening Post*

We wish that people who insist on using nonsense words like "input" would upshut —Phil Pastoret

Having fought as guerrillas for 30 years, the Vietnamese are mired in a war *against* guerrillas in Cambodia. With victory seemingly won, their economy creaks under the burden of maintaining a huge standing army. Will the good times ever come?

Vietnam and the Ironies of "Peace"

By James Kelly

The Socialist Republic of Vietnam, unifying North and South since July 1976, is vexed by troubles at home and abroad. Ho Chi Minh's dream of Vietnam as a land "ten times more beautiful" than before the war has not been realized. Its economy struggles; its 57 million people are divided and demoralized; its leadership is doddering and ineffectual. A reluctant ally of the Soviet Union, Vietnam faces China, a historic foe, to the north and finds itself bogged down in a drawn-out war in Cambodia to the south.

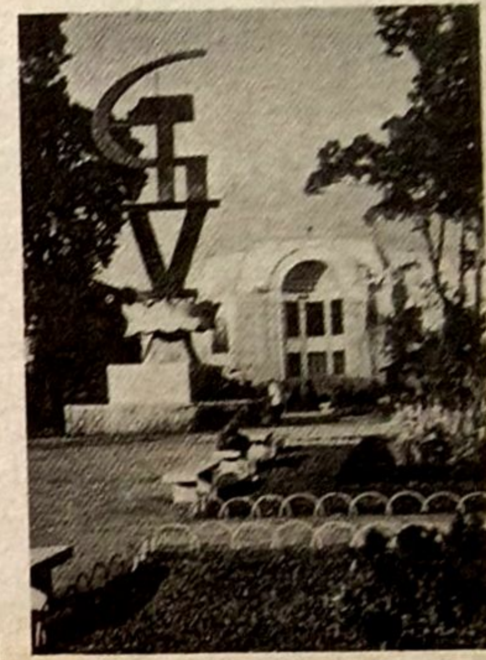
Of all the woes that bedevil Vietnam, its economic problems are the most frustrating. Officially Hanoi blames the bleak picture on three decades of warfare and on what it calls "economic sabotage" by China and the United States. (It does not mention the cost of keeping 1,029,000 men in uniform including the third largest standing army in the world.) But party officials now acknowledge that there has been poor planning and management. Occupied solely with winning the war, the North Vietnamese were not ready to rule a reunited nation.

CONDENSED FROM TIME (APRIL 25), © 1983 BY TIME INC., NEW YORK PHOTOS: EDDIE ADAMS/TIME MAGAZINE

China and the United States, the countries that fed the two Vietnams throughout the war, halted rice shipments. Soldiers going home to the North wanted to spend time with their families rather than turn their energies to rebuilding the economy. Southerners, who had been dispatched to rural work camps called "new economic zones," deserted in droves. Even nature rebelled: in 1977 and 1978 the country was hit by typhoons and drought that ravaged the crops. By 1978 the country's food production dipped to an all-time low of 11 million tonnes: Vietnamese actually had less to eat that year than at the height of the war.

The month-long invasion by Chinese troops across the northern Vietnamese border in early 1979 further harmed the economy, destroying towns and villages, roads and railways. Industries such as coal mining and fishing were hard hit as well by the exodus of Chinese labour. But the damage was minor compared with what Hanoi did to itself.

In an effort to straighten out the economic chaos, North Vietnam's rulers set out to abolish all



New Communist hammer and sickle monument in front of National Assembly, Saigon

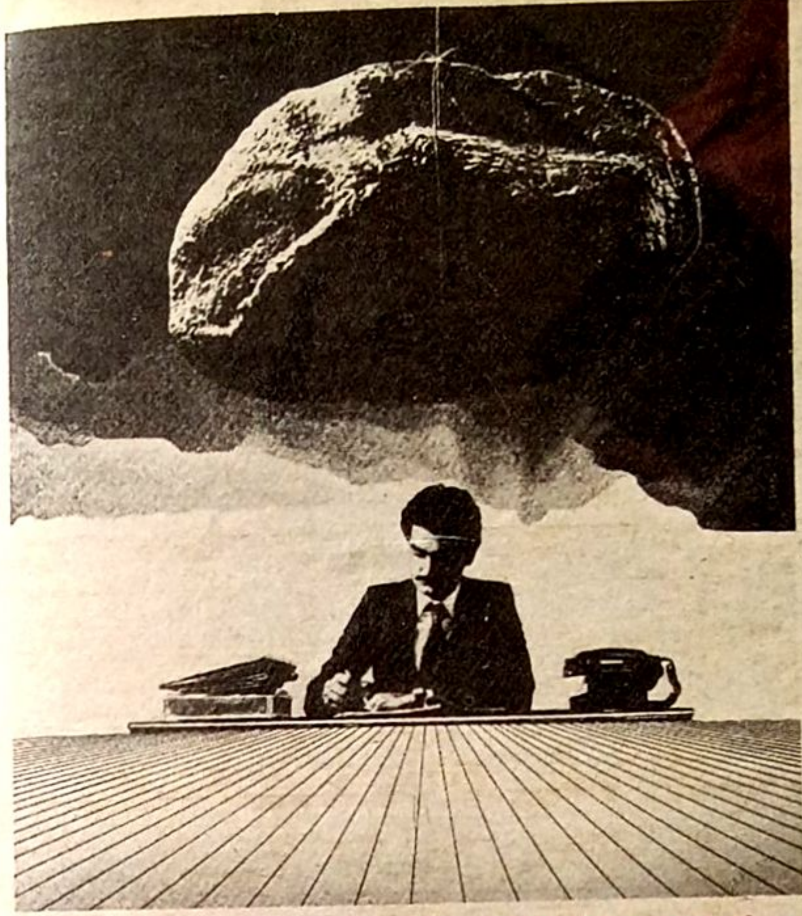
Left: Schoolchildren file past Chinese-built helicopter in Lenin Park, Hanoi capitalist remnants in the South. The stated goal: to eliminate 30,000 private shops that had been allowed to flourish after the war and reroute their trade through state-owned enterprises. This and other inept domestic policies resulted by mid-1979 in some 700,000 citizens fleeing the country, and an estimated 110,000 who died while trying to cross the South China Sea. Among the refugees were many technicians and managers. Most of Vietnam's industries have yet to recover fully from that exodus.

In September 1979 officials started tinkering with the system again to permit some free-market practices. The reform programme, later dubbed the "contract system," now allows workers to sell goods on the open market once state production goals have been met.

In Hai Hung Province east of Hanoi, for example, the Ai Quoc farming co-operative, composed of 1,250 families, sells its rice to the state for about Rs 2.50 a kilo. Once its quota is reached, the co-operative is free to trade any surplus to private merchants, who pay about Rs 10 a kilo, or to the government, which pays about Rs 7 a kilo for additional rice. "A strong worker," says Nguyen Van Nien, 35, the farm's chairman, "can earn enough a year to afford a radio or bicycle." With such incentives, production at Ai Quoc has risen by 11 per cent since 1980, with three crops a year now being planted instead of two.

The reforms have had the greatest effect in the North, where the economy is more tightly controlled. One of Hanoi's main commercial strips is now lined with private shops selling Chinese porcelain, blue jeans and counterfeit American cigarettes. In Saigon, now officially known as Ho Chi Minh City, where a black market flourished even after the 1978 crackdown, the relaxation of the rules has simply made sales more open. Pavement hawkers sell everything from refrigerators to music cassettes. The trouble is that most Vietnamese cannot afford to shop in the free market regularly. At the rate of the average worker's salary (Rs 220 at the official rate), it would take him several years to buy one of the colour television sets assembled at a former Sanyo plant in Bien Hoa.

North-South Differences. The contract system obviously will not cure all the "shortcomings and mistakes" that Communist Party Secretary General Le Duan candidly admits plague the economy. But the scheme deserves most of the credit for improving Vietnam's current economic picture—even if growth is negligible. The country harvested a record grain crop of 16 million tonnes in 1982, and offcial in-



The New India range of assurance covers
1. Personal Accident
2. Hospitalisation & Medical Expenses
3. Domestic Package Policy
4. All Risks Insurance
5. Burglary & House Breaking
6. Fire Insurance
7 Combined Fire & Theft
8. Passenger Flight
9. Public Liability
10. Carrier's Liability
11. Bullock Cart
12. Pump Set
13. Pedal Cycle
14. Horse
15. Engineering Insurance
16. Professional Indemnity
17. Workmen's Compensation
18. Multi Perils
19. Fidelity Guarantee
20. Plate Glass
21. Business Interruption
22. Cash in Transit
23. Marine
and many more.

Adversity can crush us...anyday, anytime.
Are you protected?

Disaster always strikes out of the blue. Your neighbour's factory gets completely gutted by a devastating fire. A flood ravages your best friend's farm overnight, ruining him completely. You hear about export consignments worth lakhs getting lost in transit. You read about crores being embezzled and the culprit getting away scot-free. A business comes to a total standstill due to a flash strike.

You think these things always happen to others. Never to you. But it could. When you least expect it. Catching you totally unprepared. Leaving you completely shattered. Physically and financially.

Wouldn't it be wiser to protect yourself against the unexpected? New India offers the widest range of covers against every contingency. And the premiums cost a tiny fraction of the total value of the security being offered.

A little foresight shown today can give you all the protection you need for the future. Don't delay. Call or write to your nearest New India office. We'll be glad to give you complete details.

NEW INDIA ASSURANCE
A subsidiary of the General Insurance Corpn. of India

So much security. For so little.

Contour Ads-NIA-959 D/83

dustrial output rose 11.7 per cent from 1981 to 1982, compared with an annual growth rate of six per cent during the late 1970s. The value of exports—Rs 391 crores in 1980—continues to climb, reaching Rs 430 crores in 1982.

Despite Ho's contention that "Vietnam is one, the Vietnamese people are one," however, the two halves of the country and their inhabitants always have been, and remain, quite different. The North is relatively undeveloped, with little industry, primitive roads and no high-rise buildings. The South is more modern and retains a bit of its old freewheeling ways. Northerners still regard their Southern compatriots as lazy: the Southerners consider people from the North to be dour and aggressive. Food is far more plentiful and better in the South. Though the South may be resigned to its defeat, it has not, on the whole, accepted communism. Only a small number of students, from Saigon high schools join the Ho Chi Minh Communist Youth Union, regardless of the fact that party membership assures admission to a university. Despite government warnings, many Southerners still tune in to the Vietnamese language broadcasts of the Voice of America.

Though overall security probably never has been better, the country remains heavily policed: in the cities, plainclothesmen abound. Citizens must obtain a police permit before visiting another city, and no one can change jobs or move without government permission. All music, books, magazines, newspapers and films must be reviewed and approved by the state. Hanoi is capable of censorship on moral as well as political grounds: public dancing, that pastime of the decadent West, is strictly forbidden.

The government still runs 15 major so-called re-education camps where one-time supporters of the South Vietnam regime are politically "rehabilitated."

By most appearances, the Roman Catholic Church still survives in Vietnam. Six times every Sunday, for example, some 2,000 people try to squeeze into a church built for 900 in Phi Nghe, several kilometres from Saigon. Worshippers spill out into the dusty gravel courtyard. It is an impressive sight and one that seems to confirm Hanoi's claim that all are free to worship as they wish.

Moscow's Munificence. But the co-operative spirit is deceptive, for Vietnam's three million Catholics have refused to declare themselves socialist, and Hanoi is retaliating. All Catholic schools were shut down in 1975; but far more damaging was the government's move to close seven of the South's eight seminaries. Since 1975 only seven priests have been ordained. By blocking the flow of new clergy, Hanoi is quietly strangling the church. Phi Nghe, for example, has only two priests to minister to its 12,000 parishioners.

Unquestionably, many of the country's problems can be traced to the fact that Hanoi continues to rely on war veterans rather than skilled administrators to run the government. Vietnam's top officials are all veterans, but a good guerrilla does not necessarily make a good executive. At the province level, for example, only a small percentage of the officials have a college or vocational education. The gaps extend to the top: not one of the 15 members of the Politburo has any formal training in economics.

Pragmatists favouring a less doctrinaire approach scored a major victory in 1982 when six Politburo members were demoted, 48 of the Central Committee's 133 members did not win reappointment and 86,000 party members were expelled. The Politburo, however, remains dominated by septuagenarians, some of them ailing: Premier Pham Van Dong is 78 and Secretary General Le Duan is 76.

Vietnam's economic survival continues to depend largely on Moscow's munificence. Soviet economic aid to Hanoi in 1982 totalled about Rs 1,000 crores, with an additional Rs 500 crores lent by other East bloc countries. In turn, the Soviets have demanded and been granted the right to use the military bases at Danang and the American-built facility at Cam Ranh Bay. Soviet diplomats, military experts and technical advisers stationed in Vietnam now total some 6,000.

The Vietnamese make little effort to hide their dislike and distrust of the Soviets. Hanoi signed its friendship treaty with Moscow in 1978 primarily because of the promised financial help. Since then the Vietnamese have been resisting Soviet efforts to gain greater influence within the country. The advisers are allowed to move freely throughout the North, but their travel in the South is severely restricted. The government fears that the Soviets might make friends more loyal to Moscow than to Hanoi. One Vietnamese diplomat candidly admits that his country turned to the Soviets in the first place only because Hanoi considers the Chinese even less trustworthy.

Capitalistic Measures. Though Beijing provided Hanoi with as much as $20,000 million (Rs 20,000 crores) in aid during the war, tensions began to build in 1978 when 170,000 ethnic Chinese fled Vietnam as a result of Hanoi's economic policies. Then, shortly after the Soviet-Vietnamese treaty was signed, came Vietnam's invasion of Cambodia. Hanoi's forces quickly toppled the bloody, Chinese-supported Khmer Rouge regime of Pol Pot and installed in its place a pro-Vietnamese government headed by Heng Samrin.

The Chinese are convinced that Vietnam is bent on dominating South-East Asia through a tripartite Indo-Chinese socialist union that would include Cambodia and Laos. Beijing also fears that Hanoi's actions are part of a larger Soviet scheme to threaten China's southern flank. Aside from launching their brief attack across Vietnam's northern border in early 1979, the Chinese have been giving weapons and supplies to the remaining Khmer Rouge guerrillas in Cambodia. Beijing has also vowed to come to the aid of any other potential victims of Hanoi's adventurism, especially Thailand.

Hanoi may have achieved its goal of making Vietnam one nation, but with ironic consequences. Its people endured a 30-year war, only to be mired in a dismal economic swamp. To remedy the situation, the communist government is relying on a multitude of capitalistic measures. Once constantly decrying the United States for its imperialistic aims, Hanoi invades another country and finds itself stuck in a nasty war battling stubborn guerrillas. The mass of Vietnamese must wonder: when will peace and prosperity begin?

* * *

Owner Ships

It was easy to guess what the owner of at least one boat in the marina did for a living. The ship's name: "The Prosecution Rests."

* * *

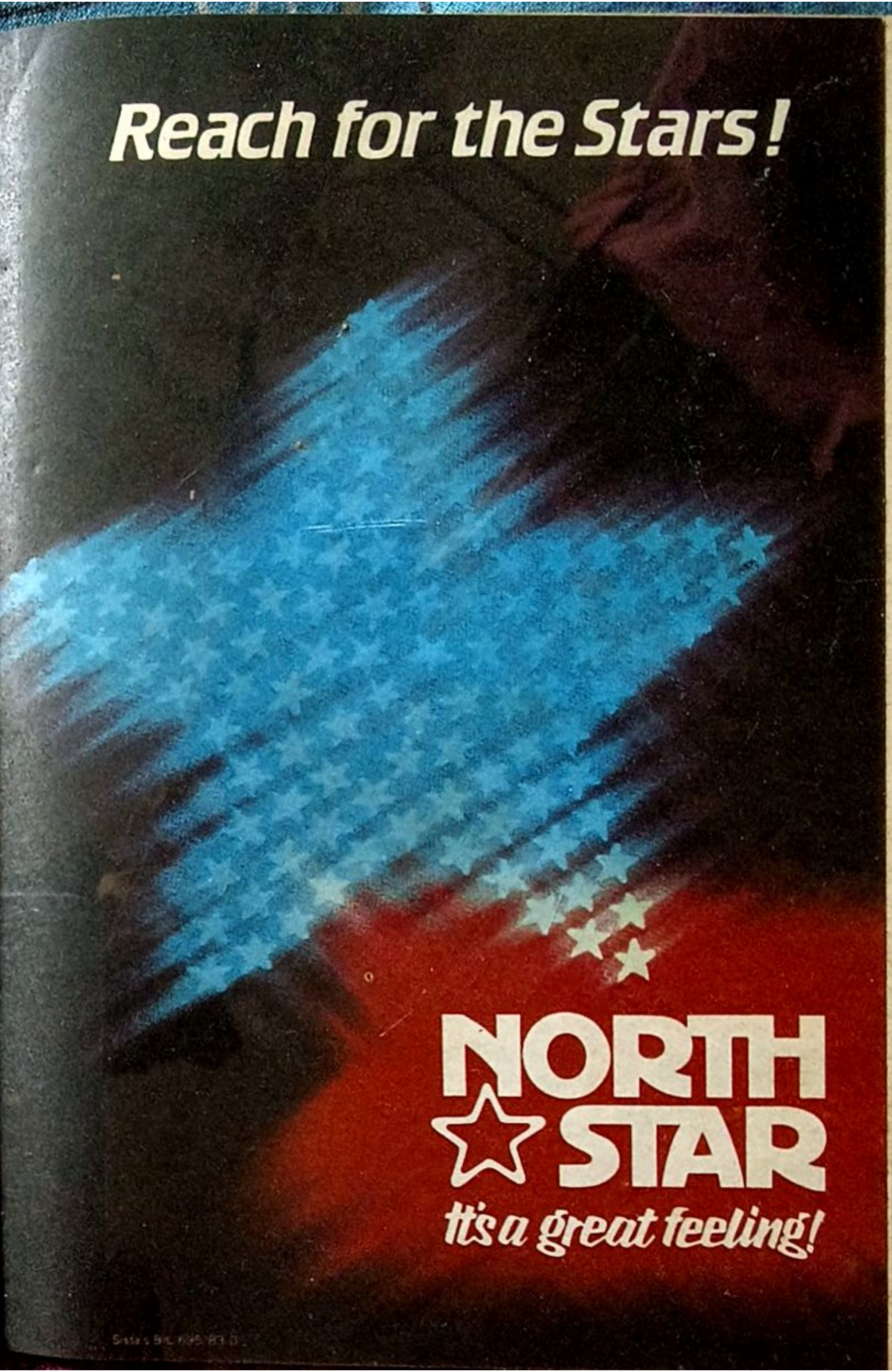
Got Your Number

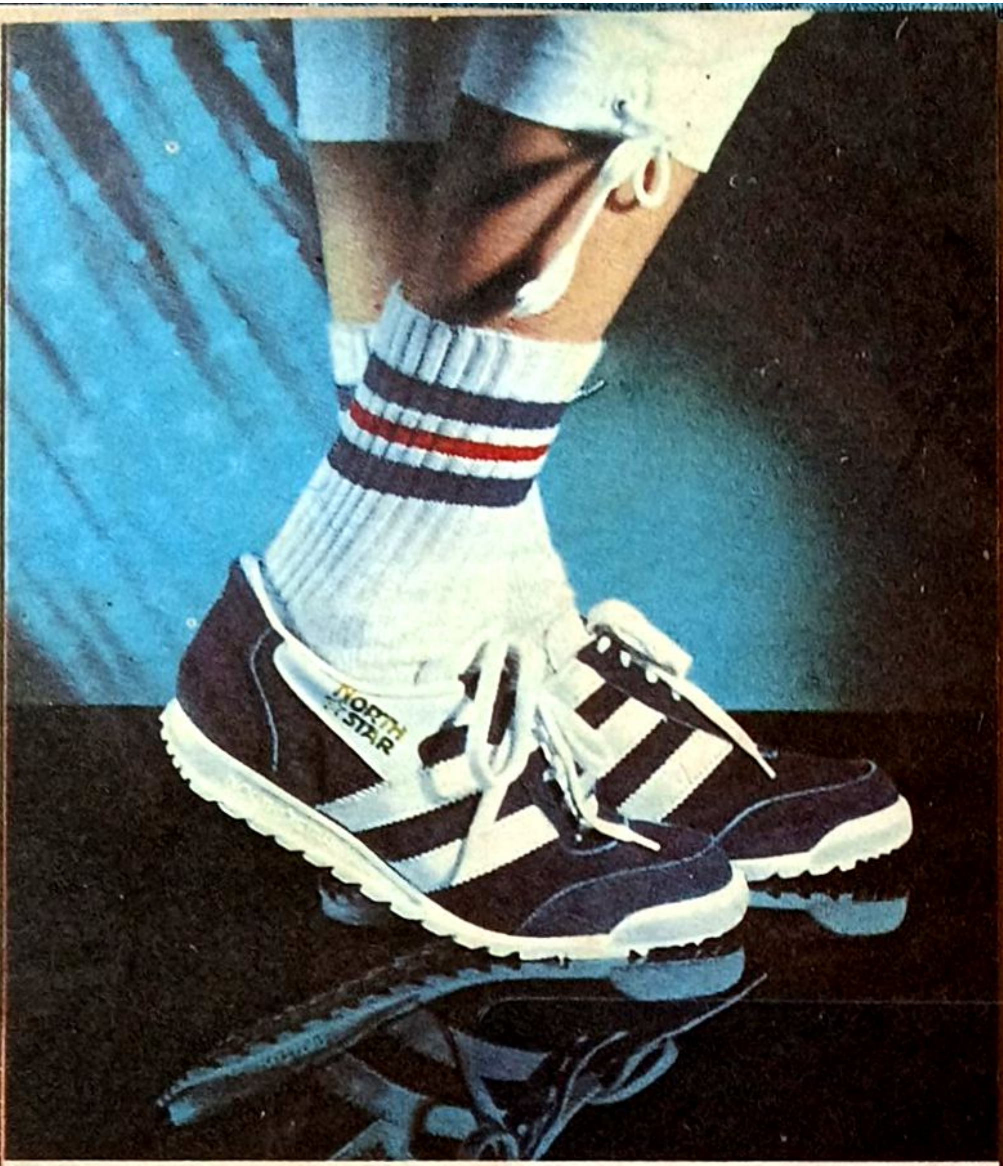
Think of any number greater than zero. Multiply it by three. Add one. Multiply by three. Add the original number.

The answer will always end with three. Strike off the three, and the remaining figure will be the original number. —*Tennessee Tar*

You have to count pretty high before you find a numeral (spelt out in English) containing the letter *A*. The answer, though hard to believe, is one thousand. —Davenport, Iowa, *Times-Democrat*

Take any three numbers in sequence, then reverse them and subtract the smaller from the larger. The result will always be 198. For example, 123 from 321, and the answer is 198. Try it. —*Sunshine Magazine*


Reach for the Stars!
NORTH STAR
It's a great feeling!



Follow the Star!

The end of all sole searching is here! With North Star. The one sole that grips you.

In styles that move you. Racy lacies. Snappy strappies. Suave suedes. In shades that mix and match. And last.

See? The only way to step up the action is to get star-struck. Right down to your toes.

North Star 66. Sizes 6–10.

NORTH ☆ STAR
It's a great feeling!

A wide choice available at select Bata & BSC Stores.

The young couple desperately wanted a child. But they were shocked and frightened by the news that they were to be parents of quintuplets. With the mother's life at risk, were there any alternatives?

FIVE TINY LIVES

BY JOHN PEKKANEN

PAM PISNER woke up afraid in her bed at a hospital in Washington, DC. It was 1am on June 21, 1983. Now seven months pregnant, Pam could think only of the Caesarean section scheduled for ten that morning. Earlier the preceding day she had seen the nurses' expressions of concern as they took her blood-pressure.

Pam was a small woman, standing 163 centimetres, but her abdomen was swollen enormously because she carried not one but probably five babies. They added 13 kilos to her normally slim, 51-kilo figure. For more than five weeks she had been in the hospital for total bed rest. A streamer with HAPPY ANNIVERSARY on it was still wrapped around the room. She and her husband, Dan, had celebrated their eighth wedding anniversary two weeks earlier.

Dan was sleeping on a small cot near Pam's bed. Carefully, she got up.

"Danny," she said, "I think I might have passed a little blood." Dr Stephen Lakner, the senior obstetrical house surgeon on call, was notified immediately.

Lakner hurried to Pam's room and examined her cervix. It was dilating with labour. Lakner left to call Dr Allan Weingold, chairman of the department of obstetrics and gynaecology and Pam's primary physician.

The cramping had become persistent. Pam and Dan knew little about normal labour, because from the outset of this pregnancy a Caesarean section had been accepted as the only realistic option. But Pam knew that the rhythmic spasms she was experiencing were not random. "This feels an awful

© 1983 JOHN PEKKANEN. CONDENSED FROM THE WASHINGTONIAN (OCTOBER 1983), WASHINGTON DC

lot like I think labour would feel," she told Dan.

At about 1.30am, Pam was wheeled into the labour-delivery area. There she was hooked up to monitors that gave digital read-outs of her contractions and blood-pressure, now 160 over 90, very high for her. The contractions were growing stronger. There was no question: Pam was in labour, and for her and the five small babies she carried, that was dangerous.

A vaginal birth would be a major problem, possibly a disaster. Five babies trying to come out, some head-first, some feet-first, could lock on to one another in the birth process. Umbilical cords could entangle and collapse, tear or sever. These fragile lives, already stressed by the conditions of foetal existence, could not tolerate much more.

Speeding along rain-slick roads, Dr Weingold knew he had to get to the hospital quickly. No matter how well he did his job, a quintuplet pregnancy was a balancing act performed on a high tightrope above a small net.

Weingold had set the date for the Caesarean after noticing, on sonograms, a gradual slowing of the growth of two of the babies. There were too many of them drawing on too few nutrients. He knew that by the 33rd week these babies would have a greater chance of survival outside the womb.

As he neared the hospital, Weingold sorted out his thoughts. He had prepared for this day for weeks. All the essential people, from pathologists to obstetricians to infant-care specialists to delivery-room nurses, had been selected—more than two dozen in all.

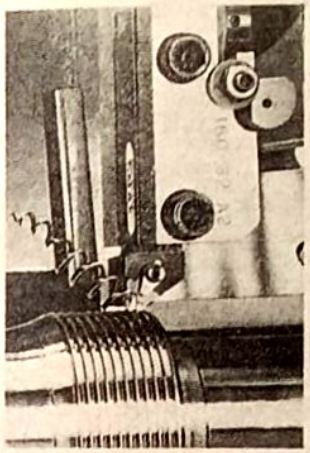
Shortly after 2.30am, Weingold arrived. Pam's contractions were only two minutes apart. Her blood-pressure had increased to 184 over 110, dangerously high. Weingold realized that Pam was suffering two serious complications: premature labour and toxaemia. The latter condition acts like a chain reaction: the blood-vessels squeeze down, raising blood-pressure and decreasing blood flow to the nervous system. This lowers the threshold at which the nerve impulses fire, leading to seizures.

Because of her rising blood-pressure, part of Pam's placenta, which lined the uterus wall and sustained the babies, could tear away and some of the babies could be lost. If the entire placenta tore away, all five might be lost—and if the bleeding could not be controlled, Pam might die too.

Within ten minutes Dr Weingold made his decision. "We're doing the Caesarean," he said. "Get everyone here." If he could hold off surgery until his team arrived, all the better. If he

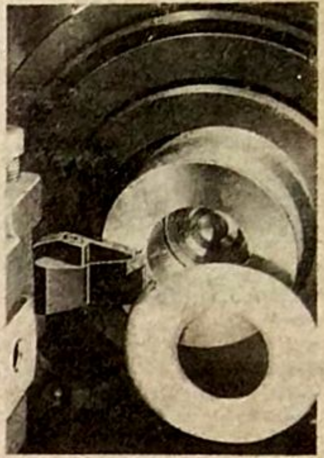
Whichever way you turn,
you will find Sandvik precision waiting for you.

Sandvik presents
a fine family of cutting tools for
threading, grooving, parting.



Threading
T-MAX toolholders and inserts for threading give a full thread profile with very close tolerances and good surface finish. In ISO, Metric and Whitworth.

Grooving
T-MAX toolholders for grooving and relief machining ensure machining to very close tolerances. The design is such that light facing operation is also possible.



Parting
The T-MAX parting tool is a highly stable tool with a rill on the insert which shortens the width of the chips enabling free chip flow. Can also be used for light facing and parting on angled surfaces.

All the above toolholders are available as standard and also as qualified toolholders for use on CNC machines.

The Sandvik Product Range: Cutting Tools for turning, milling and drilling • **Wear Resistant Parts • Rock Drilling Products • Mining Tools**

Leaders in metal cutting tools & technology in India & in the world.

SANDVIK
SANDVIK ASIA LTD.
Bombay-Poona Road, Poona 411 012.
Area Sales Offices: Bangalore • Bombay
Calcutta • Delhi • Madras • Poona

Knowing a tiger near causes a sensation in your nerves.

Come and share an experience of lifetime in the pristine forests of Uttar Pradesh.

Truly awe-inspiring. The very nearness of this savage beauty. Seen or unseen. In its natural habitat. Close encounter of this kind is unforgettable. To be deeply etched in the memory. Forever. There are other experiences. That evoke joy. Admiration. Delight. And a sense of freedom. Your rewards of close encounters. In the Corbett and Dudhwa National Parks.

CORBETT NATIONAL PARK
India's oldest and best known wildlife reserve named after Jim Corbett, Hunter, Author and Conservationist. The Corbett National Park, over 525.8 sq. km. encloses Patildun Valley of Ramganga river and foothills of the Shivalik range **The Park is the home of the Tiger, Crocodile, Deer, Elephant, Panther, Sloth Bear, Wild Bear, Gharial, Rhesus Monkey, Mongoose, Phython and 585 species of Birds.** And for the Anglers there is Mahseer, Trout and Goonch.

DUDHWA NATIONAL PARK
The 490 sq. km. Dudhwa National Park is of prime importance because of its Flora, Fauna and Ecological spreadout. The park emcompasses the forests of North Kheri Forest Division and holds abundant wildlife species. These include **Tiger, Panther, Sambhar, Swamp Dear, Spotted Deer, Hog Deer, Barking Deer, Wild Boar, Sloth Bear, Nilgai, Crocodile, Elephant, Hyena, Jackal, Ratel, Porcupine, Hare, besides 400 species of Birds and various Reptiles.** There is also good scope for Fishing. CHILA newest wild life destination near Dehradun DELHI : Dehradun and Lucknow Dudhwa conducted tours to be launched by U.P. State Tourism Development Corporation shortly. Deluxe coaches also available for group booking.

For Accomodation at Corbett & Dudhwa :
U.P. Tourism Bureaux : Chandralok, 36, Janpath, New Delhi, Ph. 322251, Chief Wild Life warden, 17, Ranapratap Marg, Lucknow, Ph. : 46140, Field Director, Project Tiger. Corbett National Park Ramnagar, Nainital, Ph. : 189, Director, Dudhwa National Park, Lakhimpur Kheri, Ph. : 560

For Information please contact :
BOMBAY : C/o U.P. Export Corporation, World Trade Centre, Cuffe Parade, Colaba **AHMEDABAD** : 138, Bhiwani Chambers Ashram Road,. **CHANDIGARH** : U.P. Regional Tourist Office S.C.O. 1045-46, 1st floor, Sector 22-B. **CALCUTTA** : 2nd floor, 12-A, Netaji Subhash Road, Phone : 226628 **MADRAS** : 28, Commander-in-Chief Road

U.P. Tourism
21-A, Vidhan Sabha Marg, Lucknow-226 001
Ph 48349/45555/45252

Uttar Pradesh–
for more than a good holiday!.

CAD/UPT/84

couldn't, he would do it without them.

Ten years earlier, at the age of 18, Pam had stopped menstruating. Dr Jay Grodin, an infertility specialist, discovered that she had a tumour in her pituitary gland. Although benign, it posed two problems. First, by causing an increase in the amount of prolactin—a hormone involved in ovulation—the tumour inhibited production of the hormone estrogen, so that normal ovulation was impossible. This was also the reason why she did not menstruate. In addition, a pregnancy could cause the already-enlarged pituitary gland to swell further and possibly crush the near-by optic nerve, causing blindness. But surgical removal of the tumour also posed risks.

In the autumn of 1981, after six years of marriage to Dan, Pam was determined to try to have children. This meant pituitary surgery. The tumour was larger than expected: removing it all was too risky. But the neurosurgeon removed enough to ensure that there would be little fear of a pituitary enlargement during pregnancy.

Then Dr Grodin prescribed Pergonal, a fertility drug. It would bypass the problems caused by Pam's continued high level of prolactin. But wasn't that the drug that caused multiple births? Grodin told her there was a one-in-five chance of that, and the overwhelming majority of those multiple births were twins.

Good News. On December 10, 1982, as she waited to see Dr Grodin, Pam looked at the dots on her handmade fertility chart. They represented her temperature peaks over the past three weeks. They seemed to go all over the place. She handed the chart to Grodin and said, "It's all messed up, isn't it?"

"No, it's perfect," Grodin answered. "Do you know what I think I'm looking at? A pregnant lady."

Pam was stunned and elated. That evening was the first night of Hanukkah. Because their medical expenses had been high, Pam and Dan had promised to exchange only cards. Dan opened his. It read: "I know we promised not to exchange gifts, but I couldn't help myself. We're going to have a baby."

They hugged and kissed, and wept tears of joy. Then they went to share their happiness with their parents.

On January 20, Dr Grodin told Pam to get a sonogram. "I think you might have twins," he said.

Later that morning, Pam lay on an examining table as the technician ran the ultrasound device over her abdomen. She knew that a sonogram normally takes about 20 minutes. Why was this one

"The accountant who stole our Diwali from virtually right under our noses was not a ten-headed demon, a slimy, hooded thief or a red-eyed, abuse-spitting villain, but a family friend for years."

A small business is often built on little money and a lot of faith. Faith in people. And a blow to that faith is fatal for the business. But it's possible to insure your employees' fidelity. Yes. It's possible to protect your Diwali from going dark. With the right cover. The Oriental cover.

Oriental offer the best of covers in the worst of times. Besides your employees' fidelity, you can cover loss of profit, machinery breakdown, cash in transit, stock, workmen's compensation, buildings, equipment furniture and fittings and public liability . . . In fact, Oriental offer some of the most comprehensive insurance policies covering anything and everything: from life and limbs to TV sets and baggage during travel, from natural calamities to burglary and riots, from contact lenses to satellites and temple elephants.

ORIENTAL INSURANCE
The Oriental Fire & General Insurance Co. Ltd. (A Subsidiary of General Insurance Corporation of India – Wholly Government-Owned)
Oriental House, A-25/27 Asaf Ali Road, New Delhi 110 002.

Mail the coupon to MR, P. Box No. 7037, New Delhi 110 002, for more details. And we will show you how to live without fear.

I would like you to send me more information on:
(Please tick relevant category)

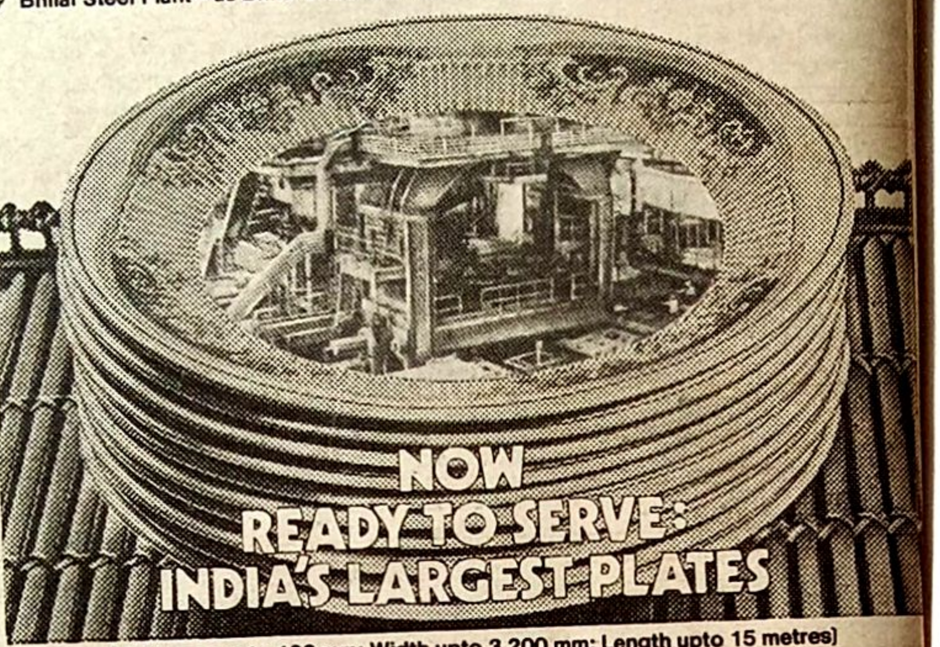
☐ **Householder's/Personal Policies**
☐ **Rural-based Policies**
☐ **Business-related Policies**
☐ **Shopkeeper's Policies**

Name: ....
Address: ....
....
....

LIVE WITHOUT FEAR

Rediffusion/OFG/2411b

Commissioned by Shri N K P Salve, Hon'ble Minister for Steel and Mines, the 3600 mm Plate Mill signifies yet another momentous milestone in the history of Bhilai Steel Plant—as Bhilai celebrates 25 years of production in service of the nation.



(Thickness upto 120 mm; Width upto 3,200 mm; Length upto 15 metres)

Bhilai Steel Plant's massive 3,600 mm Plate Mill—the core of its 4 million tonne expansion—is now on stream. The largest in India, this Mill represents a major technological breakthrough; a new self-reliance in vital industrial inputs.

With the successful trial run of its 3,600 mm Plate Mill, Bhilai's 4 million tonne expansion project is well under way The initial capacity of this gigantic Rs 558 crore Mill will be 950,000 tonnes of heavy plates, ultimately rising to 1.2 million tonnes annually. The size of the finished plates will range from 5 mm to 120 mm in thickness, 900 mm to 3,200 mm in width and 2 metres to 15 metres in length.

Spread over an area of 160,000 sq metres, the 3,600 mm Plate Mill represents a major advance in Indian steel technology and incorporates a battery of sophisticated features

- Computerised process controls — including those for regulation of temperature width and flatness of the product
- Advanced power electronics for control of high capacity drives
- Close-circuit T V to aid furnace operations
- Evaporative cooling systems for energy conservation.

A major step towards self-sufficiency

These heavy steel plates are essential to vital sectors of the nation's industrial infrastructure — ship and wagon building, bridge construction, the manufacture of defence equipment, large diameter pipes and tubulars, off-shore platforms and petrochemical and heavy machine building industries To date, heavy plate requirements of these projects have had to be imported. Now with the trial run of Bhilai's Plate Mill, India is well on the road to self-reliance

Though the most advanced technology and skills in the world have combined to scale this new frontier of steel production in India, it is a matter of pride that the indigenous contribution is as high as 83%. MECON prepared the Detailed Project Report, HEC BHE and others provided a large part o the heavy equipment and HSCL was mainly responsible for civil engineering and structural work. And, of course, the entire project was supervised, controlled and monitored by Bhilai's in-house Project Division.

This massive expansion project yet another example of Bhilai's commitment to the country's growing needs.

Bhilai
Steel Plant
1959 1984
25

STEEL AUTHORITY OF
INDIA LIMITED
(A Government of I
Enterprise)
**Bhilai
Steel Plan**
Bhilai 490001,
Madhya Pradesh

Building a stronger tomorrow. For the people-by the people.

SAA/BSP/4A2

taking so much longer?

Her apprehension turned to alarm when the radiologist came in to run another sonogram. Silently Pam watched him mouthing numbers to himself. She was certain he counted up to five. After he left the room, she began to cry. "I think it's a litter," she said to Dan.

When they arrived back at Dr Grodin's office with the sonogram, Pam said, "It's five, isn't it?"

Dr Grodin nodded. "Yes, it's five." He did not mention that the sonogram was equivocal on the possibility of a sixth foetus. Grodin realized that the shocked couple regarded the five tiny lives as more of a disaster than a miracle. He asked them to go home and talk things over.

Tough Decision. As much as Dan wanted those children, he knew that all the risks would be Pam's, and that she was tormented by the prospect facing her. He vowed he would not push her into keeping the babies. They called their parents and invited them over that evening.

When Norman and Helen Pisner entered their son's home, Pam's parents, Alan and Lenore Gotts, had already arrived. Pam was sobbing. She thought that by keeping the babies she would lose the life she now enjoyed. Dan had promised that Pam could return to her secretarial job and agreed to stay home and look after the one baby they had hoped for. *But now,* Pam thought, *how could Dan cope with five*? And they'd be short of funds all the time. Nor was Pam sure they could give five babies enough love.

The medical risks concerned Pam's father most. He wondered if Pam could survive such a pregnancy. She'd already undergone brain surgery to have a baby—what more could be asked? Given the risk to Pam's life, abortion seemed the most natural course.

Norman Pisner, who is financially comfortable, although not wealthy, addressed himself to the problem of supporting five children. "These children will be provided for," he promised. "They won't have the luxuries, but they'll have the necessities."

That seemed to clear up one issue, but the possibility of abortion still hung in the air. If they aborted, could Pam try again? Was this their last real chance to have a child? And what would happen if one or another of those babies was seriously handicapped? Multiple pregnancy increases that risk.

"A life is a life," Norman Pisner said. "You take what you get. You don't have that choice."

The issue was still unresolved when the parents left that night. Pam and Dan continued to wrestle with the choices open to them.

A few nights later they went to

Pam's parents' house for dinner. During the meal there was little discussion of the issue on everybody's mind, but after dinner they went to the living-room to talk it out once more. If Pam wanted an abortion, they didn't have a lot of time. Dan and her parents made it clear that no matter what Pam decided, it was her decision.

Then Dan spoke. "We're a team. We've had problems before, and we've worked them out. We can work this out too."

Addressing his daughter, Pam's father said, "You know there's a reason God gave you five children. He's very selective. Maybe this isn't something that should be decided by man."

Pam listened, and felt so much love in the room that she suddenly knew there would be plenty of it for her five babies.

Now as Pam waited in the labour room, feeling the contractions, she knew in the deepest part of her that she wanted all five babies to be born, alive and healthy.

At approximately 3.30am she received a small epidural injection and began to lose sensation in her lower body. About 40 minutes later, after a full dose of anaesthetic, she was wheeled into the delivery room. Everything was ready: oxygen, radiant bed warmers, resuscitation equipment. Dan took his place to the left of Pam's head.

The room grew quiet, and Dr Weingold made a ten-centimetre incision in Pam's abdomen. He cut away at more tissue and exposed the uterus. He could see the uterine wall move. Tiny elbows and knees were pushing from the inside. Weingold made a delicate cut into the uterus, reached his hand through and pulled out the first baby. He slit the amniotic sac and removed the infant head-first. Then the room erupted: "It's a boy!"

It was a 4.27am. The baby was pink and lively. Pam listened to her tiny son cry.

But the next infant Weingold removed was dead. The room became stone-silent. *We've lost one,* Weingold said to himself. *After all this we've lost one.* Yet he *knew* he had seen five healthy babies on the sonogram just a few days before.

Weingold moved to take out another baby. A live boy! The excitement returned. He pulled out the third—a girl!

It was 4.29am when Weingold found the fourth baby. Another boy. *One more,* he thought, *let there be one more.* He reached in, and high on the back wall of the uterus he found a fourth boy, lively and healthy. The dead baby had been the suspected sixth foetus.

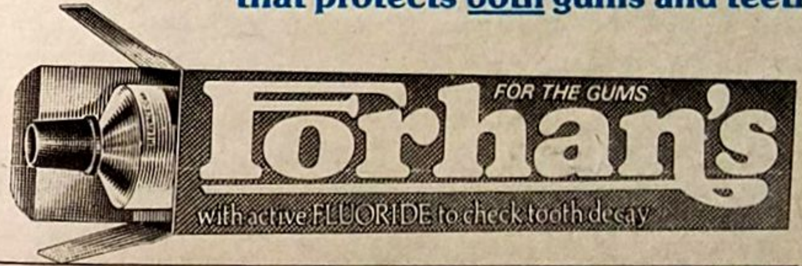
The newborns were given an Apgar test, which measures heart rate, colour, respiratory effort, muscle tone and reflex reaction. A

The day my son discovered cavities!

"MUMMY. Anil's got holes in his teeth."
"You mean cavities, love."
"Yes... that's what I mean. But then I showed him my teeth, mummy. And told him about my nice toothpaste. The tasty, foamy one."
"Forhan's Fluoride, my dear."
"Oh yes... I told him I use it because you say it's good. And because I like it."
"It's good because it strengthens your gums, and gives your teeth a long life."
"Ya, that too! Mummy, can I have some of this chocolate cake? I promise to brush my teeth later...!"

Forhan's Fluoride

The tasty, foamy toothpaste that protects both gums and teeth.


FOR THE GUMS
Forhan's
with active FLUORIDE to check tooth decay

331F-173

Pam and Dan Pisner with their quintuplets

ten is a perfect score, and each Pisner baby registered a nine. Devin Matthew, the first born, weighed 1.47 kilos; Ian Scott was 1.36 kilos; Shira Lee was 1.08 kilos; Michael Evan was 1.30 kilos; and finally Elliot Richard, the fifth baby born, 1.16 kilos.

They were wheeled into the intensive-care nursery. Doctors and nurses attached small blood-pressure cuffs, took blood samples for analysis and began to feed them intravenously. A nurse held up one of the quints and waved his arm to his grandparents, who stood outside the nursery window. "It's a good world," Lenore Gotts said. "It's a good world." Early-morning light was just visible outside.

Pam had a difficult recovery and drifted in and out of consciousness for two and a half days. Four of the quints thrived, but Elliot struggled with hyaline-membrane disease, which results from immature lungs and prevents them from inflating properly.

On July 26, because of another medical problem, he underwent an hour-long operation. "Having four healthy babies is no consolation," Pam says. "It doesn't make you worry less about the one who's in trouble." Finally a surgeon emerged from the operation theatre. All was well with Elliot.

In November 1983, Pam returned to work. Dan stays home to care for the infants. The house is busy, often noisy, but it is also filled with laughter. When friends drop in, Dan shouts out, "Wash your hands and you can hold a baby. We've got plenty."

The children already have very distinct personalities. Devin, the biggest and fairest, is easygoing and relaxed. He takes up to 40 minutes to drink a quarter cup of milk. Shira, dark and wiry, gulps down the same portion in five minutes. Ian is the cuddler: he loves to nuzzle and be nuzzled. He and Shira are the only ones who can wake up in their cots and just lie there, content to look at the world. Michael is the "talker," forever making noises. He and Shira look most alike. Elliot, despite his medical problems, remains even-tempered and responds happily to the loving his parents give him.

PAM CHERISHES the memory of a visit her father paid her a few days after she'd given birth. Holding hands, they spoke of those anguished hours five months earlier when Pam first learnt she was carrying five babies. He'd just been to the nursery and seen his grandchildren. "Looking at those five beautiful babies is such an affirmation of life," he told her. "I can't believe we ever thought we had a decision to make."

* * *

Not Sure

AT A conference in Australia, where people have a tendency to turn their "a's" into "i's", an Australian asked a Malaysian: "Did you come today?"

Taken aback, the Malaysian blurted out: "No . . . er, I think I came to live."

—B.P. Padhi, Orissa

Cartoon Quips

POLITICIAN to crowd as he hands over bulging sack to garlanded leader: "He insisted that the purse to be presented to him should contain coins only!"

—Mohan Rele in *The Daily*

MINISTER to aide: "Give me a long-winded, complicated sentence to say that more land should be brought under agriculture."

—Laxman in *The Times of India*

PHOTOS: RHODA BAER

Yesterday Rekha painted a masterpiece — all over herself!

"Mummy, it looks like a new dress!"
High Power
Surf
washes whitest
...and it shows!

High Power SURF washes whitest - and it shows!

Good for whites, good for coloureds.

A Quality Product by Hindustan Lever

LINTAS SU 267 1711

Laughter, the Best Medicine®

A HYPOCHONDRIAC went to have a medical check-up. During the examination, the doctor was called out of the room, and the patient stole a look at his chart. When the doctor returned, the man pointed to an item and angrily demanded an explanation.

"In the first place," said the doctor, "you shouldn't have read my notes. In the second place, those initials stand for 'short of breath.' " —J.D.

"WHAT KIND of flower is that in your buttonhole?" a man asked his friend.

"Why, that's a chrysanthemum," answered the friend.

"It looks like a rose to me."

"No, you're wrong. It's a chrysanthemum," insisted the friend.

"Spell it," the fellow said.

"K-r-i-s-, no it's K-h-r-y-, no it must be C-r-i-s- . . . You're right. It *is* a rose." —Winston Pendleton, *2121 Funny Stories and How to Tell Them*

AFTER much controversy, a school adopted a sex-education programme. One mother hadn't been too enthusiastic about it and was worried about how her small daughter would react. Imagine her feelings when the youngster came home and said, "Mummy, guess what? We learnt how to make babies today!"

"What?" the mother gasped. Then, trying to speak calmly, she asked, "Tell me, dear, how *do* you make babies?"

"Easy," the little one said. "You drop the *y* and add *i-e-s*." —Sister Claudia in *Catholic Digest*

DEFINITION of a tank: a means of transportation the USSR army uses to visit its friends. —V.M.

A priest was speaking to the Sunday school kids about the things money can't buy. "It can't buy laughter and it can't buy love," he told them. Driving his point home, he said, "What would you do if I offered you a thousand dollars not to love your mother and father?"

Stunned silence ensued. Finally, a small voice queried, "How much would you give me not to love my big sister?"

—Quoted by James Dent in Charleston, *Gazette*

It was a typical family evening—Father sat in his favourite chair reading the paper; the baby sat at his feet playing with a toy; Mother sat in her favourite chair knitting. Father happened to glance down at the baby. "Baby's nose is running," he said.

Mother dropped the knitting on her lap in disgust. "Don't you ever think of anything but horse racing?"

—M.B. in *Table Talk*

An elderly man stopped at a hearing-aid centre and asked about prices.

"We have them from $25,000 down to $1.50," the salesman said.

"What's the $25,000 one like?"

"Well, it translates three languages."

"And what about the one for $1.50?"

"It's this button attached to a string," said the salesman, pushing it across the counter.

"How does it work?"

"It doesn't. But if you put the button in your ear and the string in your pocket, you'll be surprised how loud people will talk."

—Robert Denk, quoted by Judy Wells Martin in Jacksonville, *Florida Times-Union*

Two seasoned photographers were on assignment in Alaska, capturing the wildlife of America's last great wilderness on film. One day they encountered a grizzly bear catching salmon by a quiet stream. The huge beast spotted them, and standing on his hind legs the better to identify the intruders, he struck a magnificent pose for the excited journalists.

Suddenly, the bear charged. Seizing this opportunity of a lifetime, the two kept right on photographing the angry grizzly as he closed the distance between them with amazing speed. Finally, one of the men became a bit unnerved. "Joe," he said, "there are no trees tall enough to climb around here. What in the name of heaven are we going to do?"

"I'm not sure," his friend replied anxiously. "But one of us is going to get one hell of a picutre!" —R.F.

The newly-weds were honeymooning at a seaside resort. As they walked arm-in-arm along the beach, the young groom looked out to sea and cried poetically: "Roll on, thou deep and dark blue ocean, roll!"

His starry-eyed bride gazed at the water for a moment, then in hushed tones gasped, "Oh, Fred, you wonderful man! It's doing it!"

—Sam Himmell, *Baldwin Brevities*

A beggar knocked on the door of an English inn called George and the Dragon; and a woman opened it.

"Could I have a bite to eat?" he said.

"No!" screamed the woman, slamming the door.

He knocked again and the woman opened the door. "Now could I have a few words with George?"

—G. Brown in Connecticut, *News-Times*

I've finally figured out why airports make you walk so far to get to your plane. It's their way of giving your luggage a head start. —O.C.C.

PHILIPS

This 60W lamp gives you as much light as a 100W bulb

PHILIPS ARGENTA SUPERLUX

The Argenta Superlux has a special frosted window to direct more light where you need it. This concentrated beam makes a 60W Argenta Superlux give as much light as an ordinary 100W bulb.

The Argenta Superlux cuts your electric bill by Rs.24 a year, and lasts longer. The lamp is ideal for studying, painting, sketching, knitting...

Available in 40W and 60W versions.

Philips Argenta Superlux — the 60W lamp with the light of a 100W bulb.

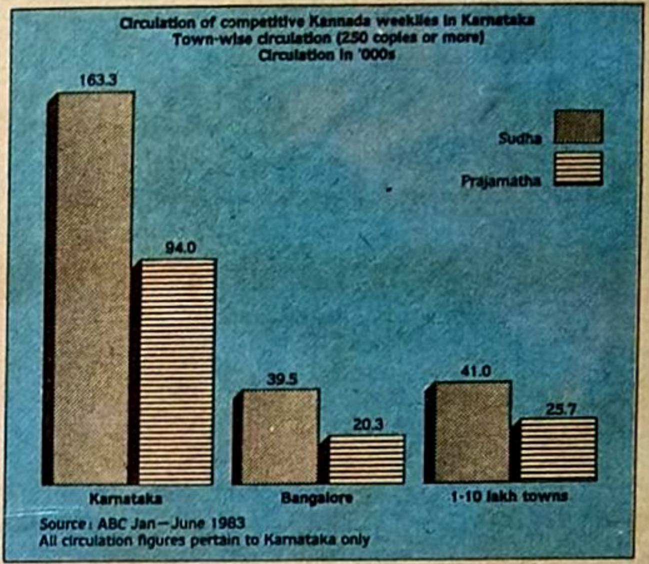
Cuts electric bill by Rs. 24

Philips — the trusted Indian household name for over fifty years

Sudha. The household magazine of Karnataka.

The largest circulated, most loved Kannada weekly.

Sudha is a colourful, general interest, pictorial feature weekly which caters to the entire family. Though its main emphasis is on social and cultural topics, it does not neglect the political side of our society. It also covers science, sports and other topical subjects. Besides, it has a film section. Skits and humorous articles are its regular features. It has weekly columns, 'Behind-the-News' and 'Persons of the Week'. However, Sudha's attractiveness is derived from its popular fiction—both novels which are serialised and short stories. Its women's section features fashion, household problems and beauty care as well as more topical women's social issues. Its children's corner is very popular with the young.



Source: ABC Jan—June 1983
All circulation figures pertain to Karnataka only

Changing with the times

As Bangalore turned metropolitan, Sudha and its parent organisation rapidly modernised themselves. New systems and computerisation of accounts and finance, new methods of management, new personnel policies with recruitment and promotions based solely on merit have transformed Sudha and its parent organisation into a modern, dynamic and forward-looking institution with a professional outlook. But the institution has not discarded its old human values. It does care for and look after its employees.

A public institution

The Printers (Mysore) Limited, the Company which owns Sudha and its sister publications, is a major public institution in Karnataka. It takes its social role and responsibilities very seriously. In all its publications, which in their respective areas are the largest selling in Karnataka, it strives to uphold the values of simplicity, sobriety and authenticity. Its criticism is expressed without fear or favour.

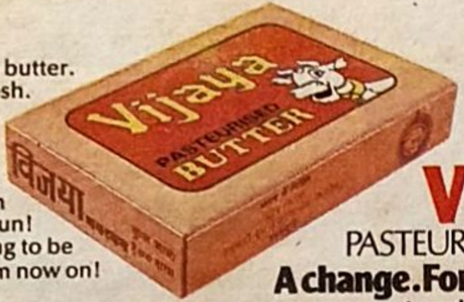
Today, if the Printers (Mysore) Limited is one of the largest newspaper institutions in the country, it is because it has always had a long-term perspective. It believes in continually strengthening itself by investing in new machinery, in improving the quality of its personnel, in sales promotion, in improving editorial quality and now, in expansion. It continually strives towards improving quality in every respect.

The Printers (Mysore) Limited

The No. 1 Publishing House in Karnataka

PML-1549

VIJAYA
It's a butter life!

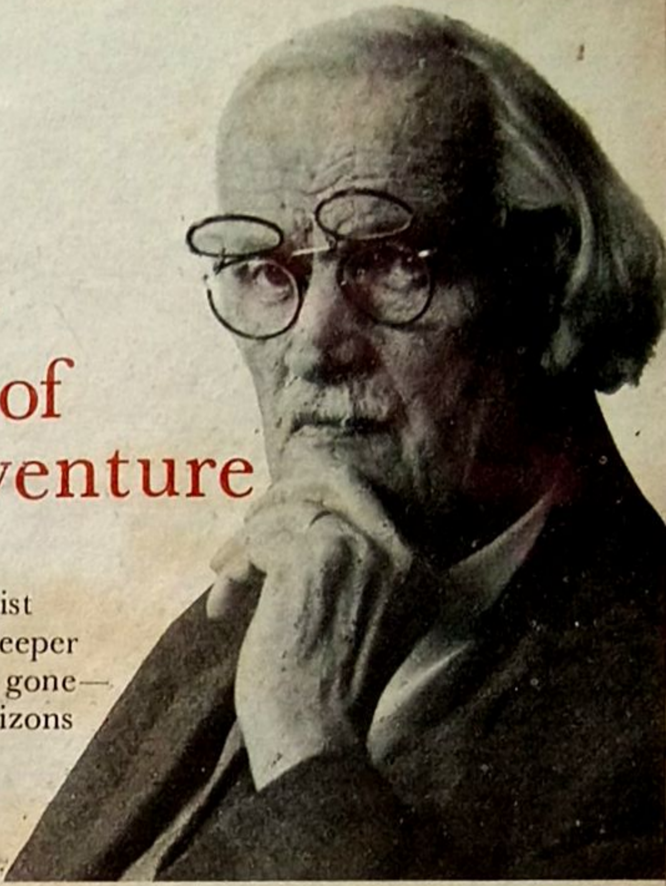


Vijaya butter.
Golden. Dairy-fresh.
With that rich creamy taste.
Vijaya.
The go-between that makes
a happy, snappy sandwich.
The golden taste that goes with
everything under the bun!
Vijaya. It's going to be
a butter life from now on!

In 100g, 200g and
500g packs.

VIJAYA
PASTEURISED BUTTER
A change. For the butter!
A product of Sangam Dairy
Andhra Pradesh Dairy Development
Co-operative Federation Limited

Auguste Piccard—Professor of High Adventure



This daring Swiss scientist flew higher and dived deeper than any man had ever gone—and opened up new horizons for all mankind

By Roul Tunley

TO STUDENTS at Brussels University, Auguste Piccard, with his stork-like figure and domed brow, was a typical absent-minded professor. Once, when he asked a student which way he'd been heading when they met and the young man pointed towards the lecture hall, Piccard commented: "Then I've eaten lunch." Minutes later, the brilliant Swiss physicist dazzled his class by drawing a complicated design on the blackboard with one hand while writing the scientific explanation of it with the other.

Equally adept in his laboratory, the professor developed the most accurate scales ever built for weighing chemical substances, created the most precise galvanometer for measuring electric current—and the most delicate seismograph for recording earthquakes. But it was his adventures outside the laboratory that made

PHOTO: MILTOS TOSCAS

him famous—his quests to know the unknown. "I want to go higher than anyone else ever has—and deeper," he once told a boyhood friend. Years later he would have his wish.

Piccard was born in Basle in 1884, and his exceptional intelligence was obvious from the start. At the age of ten, when his family took him to the circus, he became absorbed watching the lion tamer walk from the inner to the outer cage, carefully closing the door of the former before opening the latter. Young Auguste was working on the principle of the airlock that he would use later in his stratospheric experiments.

Fascination for Flying. He went on to study at the Swiss Institute of Technology in Zurich, where he met Albert Einstein.* In 1922 Piccard moved to Brussels to teach and became interested in cosmic rays, a major concern of the day.

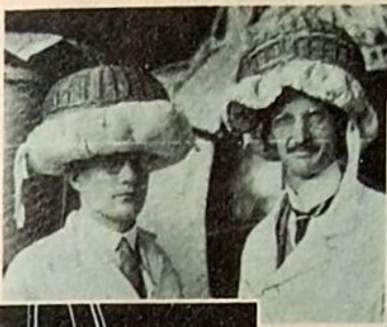
The rays were thought to cause radiation sickness and genetic mutations. The atmosphere protected man from some of these effects, but how much? The only way to find out was to go above the clouds, higher than anyone had ever been before. Piccard also believed that the future of manned flight lay in the stratosphere, 12 kilometres above the earth where air resistance is slight. But to convince others he had to prove first that man could survive at this height with its cosmic rays, lack of oxygen and temperatures as low as minus 60 degrees C.

As a child, Piccard had been fascinated by flying and at the age of 30 obtained his balloonist licence. Now he would use this skill to do cosmic-ray experiments. With money from a Belgian research fund, he built a 2.10-metre air-tight aluminium sphere, and to lift it designed a hydrogen balloon 15 storeys high—the world's largest. On May 26, 1931, all was ready for the historic take-off from Augsburg, Germany. At 3.30 the next morning, the 47-year-old Piccard and his assistant, Paul Kipfer, climbed into the world's first pressurized cabin, wearing homemade crash helmets. They planned to land at noon.

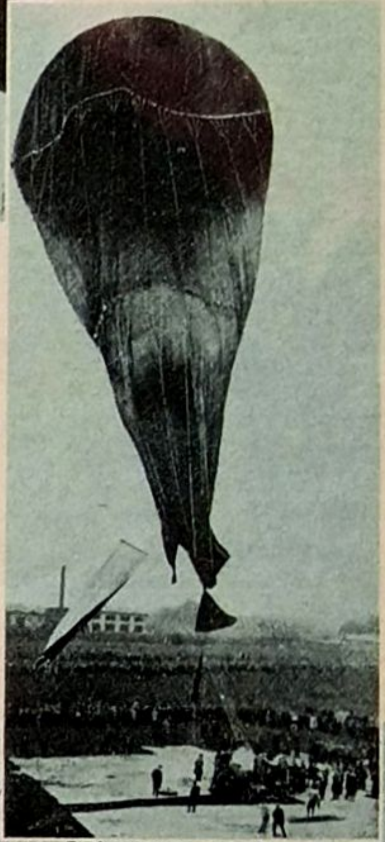
The take-off was marred by strong winds. The crew on the ground threw up extra ropes to hold down the big bag, but it was too late. When Piccard looked out of the window to give the take-off signal, he was already sailing over smokestacks. The balloon climbed to 4,000 metres in no time. Then something went wrong. The air pressure registered the same inside and outside the cabin. Precious air was escaping from the cabin

---

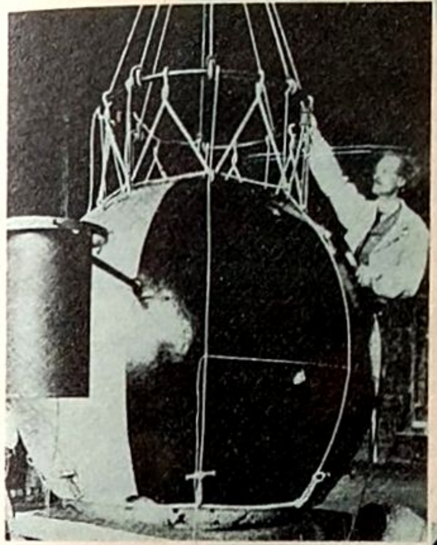
*Many years later, when Einstein was living in the United States and Piccard was a well-known balloonist, some scientists cast doubt on the relativity theory. Einstein asked Piccard to prove it during a balloon flight where he could measure the speed of light more precisely than on the ground. Piccard made the flight for his friend and conducted an irrefutable demonstration of the theory.



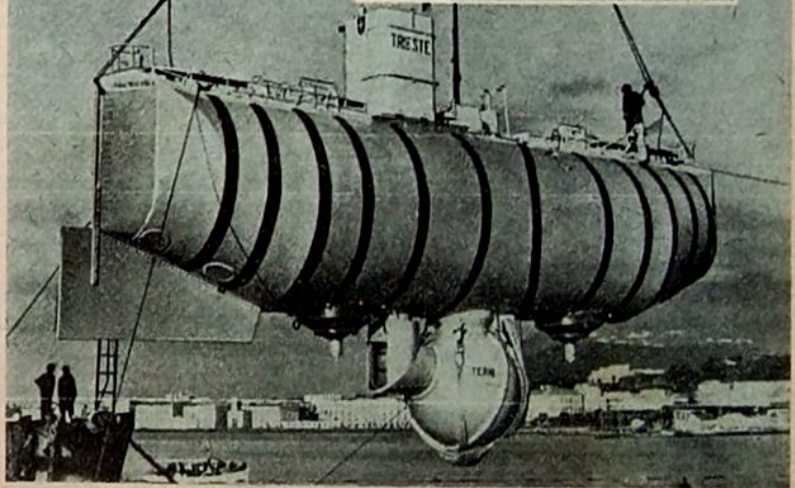
Auguste Piccard and Paul Kipfer wearing their crash helmets: upturned baskets lined with cushions



The 15-storey-high hydrogen balloon being readied for a trial run at Augsburg, Germany, on September 14, 1930



Piccard inspects the aluminium sphere that would carry him to a height of 15,780 metres



The bathyscaphe "Trieste" being lowered into the sea

PHOTOS: ACTUALITE AND M. TRONCONE

through one of the gauge inlets. Piccard patched the leak with oakum and vaseline.

"Gorgeous View." A violent lurch caused the barometer to crash to the floor. Piccard watched the mercury spilling out at their feet; he knew that it could quickly eat a hole through aluminium. If he only had a vacuum cleaner, he thought. Then he realized he had one—the biggest in the world just outside his window. He rigged up a hose to a vent, and the mercury was quickly sucked outside.

At 15,780 metres well into the stratosphere, the air leak began again. Piccard decided to go lower. He pulled the gas-release valve to partially deflate the balloon, causing it to descend. The valve didn't work. One of the extra ropes used at take-off had got entangled with the valve rope. If Auguste pulled the rip-cord to empty the balloon completely, they would drop like a rock and surely die.

Piccard and Kipfer were trapped—prisoners of the stratosphere they'd hoped to conquer. They drifted helplessly over the Alps towards the Adriatic Sea. Piccard knew that if they could hold out until sunset, the balloon would descend as the outside temperature dropped and the gas cooled. There was nothing to do but wait.

The rising sun heated the cabin unmercifully. One side was painted white to reflect the heat, but the side now exposed to the sun was painted black and absorbed the powerful rays; the electrical motor that should have turned the cabin had broken down. The temperature reached 40 degrees C. It was impossible to conduct all the planned experiments but Piccard recalled later, "the view was gorgeous."

The hours dragged on. Meanwhile, the world press was calling the overdue balloon flight a disaster and Piccard's wife and five children feared the worst. At last the sun set—but nothing happened. "Inconceivable that the balloon isn't going down," Piccard wrote in his logbook.

Overnight Heroes. Finally at 7.45pm the balloon began to sink, slowly at first, then with increasing speed. By 9pm, they had descended to 4,500 metres. Their oxygen supply was almost gone. Piccard, feeling the onset of fatal drowsiness, threw open the hatch to suck in fresh air. As they skimmed over the jagged mountains, Piccard spied a small village and tried to signal it with a torch.

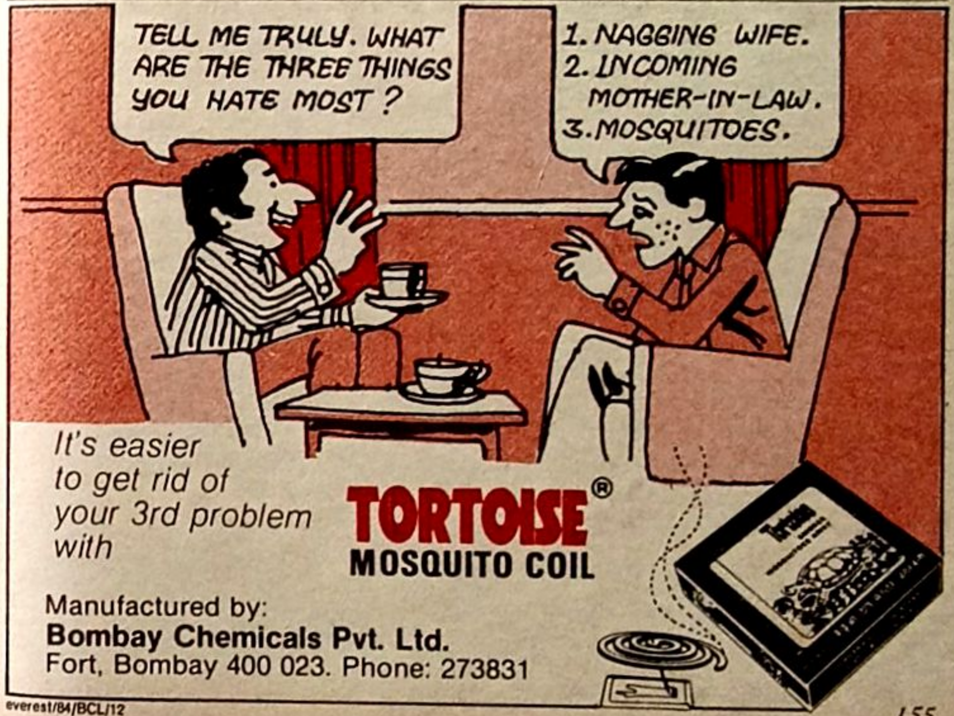
The balloon was dropping fast now, and the two men narrowly escaped being dashed against a towering precipice. Piccard stood ready to empty the balloon at the first possible moment. "Now!" he yelled, as they floated low over a snowy plateau. Kipfer yanked the rip-cord and the balloon touched

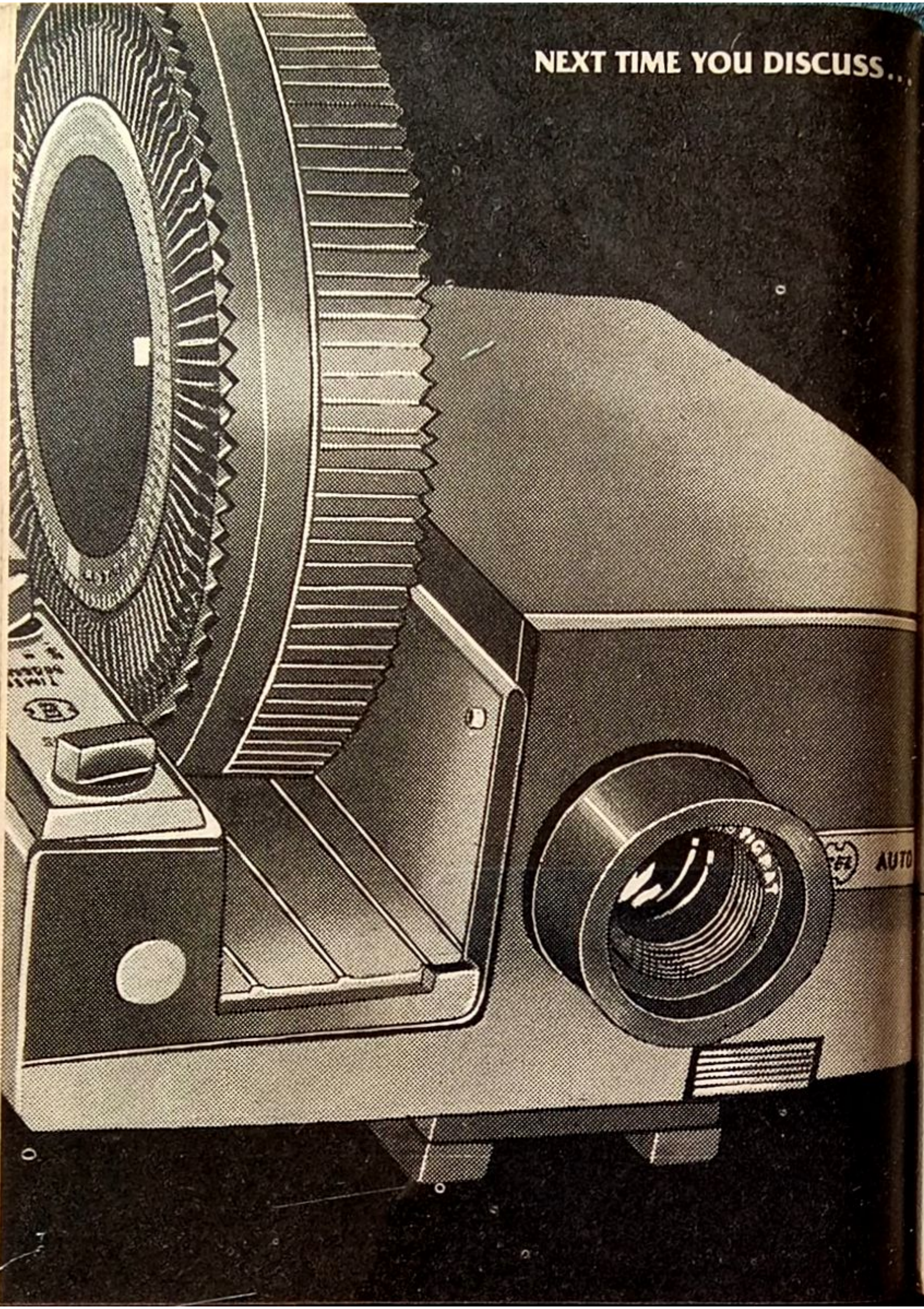
down. The landing was rough, but fortunately neither one was hurt.

Piccard and Kipfer spent the rest of the night on the glacier, wrapped in the folds of the deflated balloon. In the morning, a rescue party from the village of Obergurgl in Austria found them. Piccard's torch-light signal had been seen after all.

Piccard and Kipfer became overnight heroes, even though their cosmic-ray experiments were not completed. By climbing 16 kilometres into the stratosphere they had captured the world's imagination. "It was the first true space capsule," says William O'Donnell, a United States National Aeronautics and Space Administration official. The next year, Piccard returned to the stratosphere. He started from Zurich, Switzerland, and this time the trip went without a hitch. Piccard proved that cosmic rays would not hinder man's invasion of the stratosphere. In effect, he opened the whole era of modern air travel and space exploration.

Having conquered the stratosphere, Piccard turned to the sea at the age of 53. Though no one had ever gone down more than 923 metres, he envisioned making the ocean's depths as accessible as he had made the stratosphere. First he attached a steel sphere to a float filled with petrol, which is lighter than water. To sink the bathyscaphe


TELL ME TRULY. WHAT ARE THE THREE THINGS YOU HATE MOST?
1. NAGGING WIFE.
2. INCOMING MOTHER-IN-LAW.
3. MOSQUITOES.
It's easier to get rid of your 3rd problem with
TORTOISE®
MOSQUITO COIL
Manufactured by:
Bombay Chemicals Pvt. Ltd.
Fort, Bombay 400 023. Phone: 273831
everest/84/BCL/12



Don't raise your voice any more

Be it a conference, a discussion or a presentation of your plan. A classroom session or a fashion show.

Make it come alive with an audio-visual presentation-colour slides and sound track

You can go on showing pictures after pictures or reverse them. Manually or by remote control.

The synchroniser will synchronise the show with music and commentary.

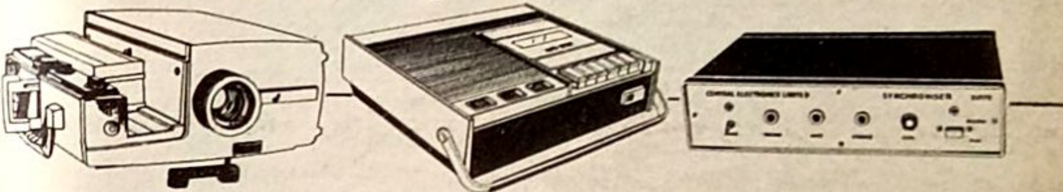
The versatile dissolve unit will help you to create the desired continuation of the show.

This system has been developed in collaboration with CEERI, Pilani.

And CEL has gone one step further. If you desire, CEL will conceptualise and develop your show. From the scripting to the shooting, the entire production.

So the next time you communicate, no matter how big or small the audience is, remember you don't have to raise your voice.

It will be a live pulsating show.



For further details write to:
SYSTEM SALES

CENTRAL ELECTRONICS LIMITED
A Government of India (Deptt. of Science & Technology) Enterprise,
Sahibabad-201 010 (UP)
Tel: 201320 Gram: CELFERCORE Ghaziabad
Telex: 0592-203 EC IND
Delhi Sales Office: 781, Desh Bandhu Gupta Road,
Karol Bagh, New Delhi-110 005, Tel: 526836

Making sense of science

Interads

(Greek for deep-sea ship) he put iron pellets in tubs held to the float by an electromagnetic current. When the diver wanted to rise, he would push a button, cutting the current—and the pellets would fall away.

Stunning Record. The Second World War temporarily interrupted the project. Finally in 1948 Piccard began tests off the coast of West Africa. The first dive was to 25 metres, the second, unmanned, to a record 1,388 metres. But before Piccard could attempt a record-breaking manned dive the bathyscaphe was damaged while being towed in a rough sea.

In 1953 Auguste, now 69, and his 31-year-old son, Jacques, were ready, with a new bathyscaphe, *Trieste,* for a dive off western Italy. On the first day, they went down 40 metres; at this depth they could still be rescued by divers if anything went wrong. The vessel behaved beautifully. They decided to take it down to 1,080 metres. Everything went well as they went from fading light to total darkness.

At last their searchlight hit bottom—and all went black. They'd sunk into a morass of mud. They knew they were at least 1.5 metres into the ooze because their window was completely covered. It was the first time man had touched the sea-bottom alive.

To return to the surface, Auguste released the tubs of iron pellets—but the cabin remained motionless. Were they so deeply mired that they couldn't get away? After what seemed like an eternity, they felt a slight shudder, and saw a swirl of muddy water. They were rising.

A few weeks later, Auguste and his son dived to a stunning record—3,150 metres—and opened the way for deep-sea experiments.* It was perhaps Piccard's greatest moment. He'd gone higher and deeper than any man before him. His boyhood dreams had been realized. Piccard retired from teaching and moved back to his native Switzerland. He died on March 25, 1962, in his sleep at the age of 78.

During his life, many countries honoured this hero of high adventure for his exploits. His daring nature, the records he broke, made him famous. It was an odd role for the modest professor, who was vaguely pleased but also a little embarrassed by the acclaim. "All I really wanted to do," he said once, "was to turn searchlights upon the darkness. That's what makes life worth living."

It was a fitting epitaph for this extraordinary man.

---

*Later on the *Trieste* was acquired by the US Navy. On January 23, 1960, Jacques Piccard and the US Navy Lieutenant Don Walsh reached a depth of 10,916 metres in the Mariana trench.

* * *

THE WORLD wisely prefers happiness to wisdom. —Will Durant

CAPEXIL
Awards
Export Excellence

CAPEXIL'S PROFILE

CAPEXIL is a 26 years old acronym.

Established in 1958, the Chemicals and Allied Products Export Promotion Council, (popularly known as CAPEXIL) is a non-profit making and service oriented organisation devoted entirely to promotion of exports of chemical based allied products from India.

A joint venture of the Government of India and the trade, the Council has two primary functions.

To apprise the government of the current developments in the export sector so that necessary measures can be adopted to aid export; and secondly, to extend assistance to Indian exporters in their efforts.

CAPEXIL'S growth rate has been tremendous. With over 2250 constituents, the Council has today emerged as the vital link between Indian sellers and worldwide buyers. A link forged by time proven expertise.

Export earnings have escalated from Rs. 380 million in 1970-71, to Rs. 2320 million in 1982-83, and are projected at Rs. 3060 million in 1983-84. CAPEXIL plans to raise its export earnings to Rs. 8000 million by the end of the current decade.

Shri V. P. Singh Hon'ble Minister of Commerce

EXPORT AWARDS—AN IMPETUS FOR GROWTH.

CAPEXIL awards performance.

Every export unit that shows promise and proves it by growth or adopts innovative techniques to aid its growth, is awarded.

The Council presents three types of Export Awards.

The Top Export Award, the Special Export Award and the Certificate of Merit.

Selection for Top Export Awards is made on the basis of volume of export and exports growth and such awards are given to the topmost exporters irrespective of product groups.

One of the three Top Awards is given to the best performer in the Small Scale Sector.

The Special Export Awards are given to the best performers in their respective sectors on the basis of export volume, growth attained and innovative measures undertaken to build up export. The segregations include Rubber, Footwear, Tyres, Paints, Glass and Ceramics, Minerals, Plywood, Paper, Paper Products, Books and Miscellaneous products.

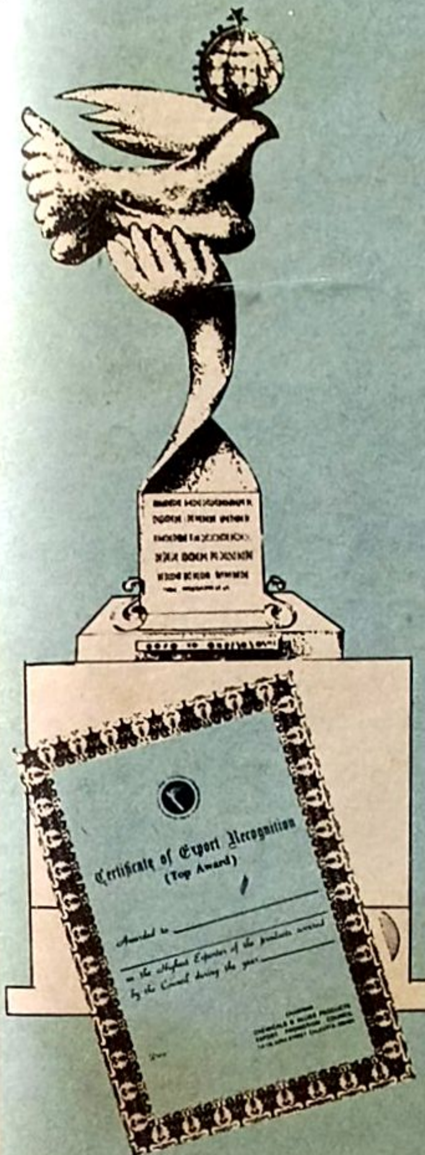
In addition, 2 Special Awards are given- one to the Small Scale Sector and the other to Export House/Merchant Exporter sector.

The Certificates of Merit are awarded to all member-exporters whose performance are satisfactory and fulfil certain minimum criteria.

For the preceding year i.e. 1982-83 CAPEXIL gave away 3 Top Export Awards, 29 Special Export Awards and 76 Certificates of Merit.

The Awards were given away by Shri V.P. Singh, Hon'ble Minister of Commerce at a function at Vigyan Bhavan, New Delhi on January, 11.1984.

Top Export Award


Certificate of Export Recognition
(Top Award)
Awarded to
as the Highest Exporter of the products covered by the Council during the year

DR. BECK & CO. (I) LTD., PUNE.

Twice before. Once again.

1984 witnesses Dr. Beck and Co. carrying away CAPEXIL'S Top Export Award for the third time.

The Company is internationally renowned for its extensive range of wire enamel, insulating varnishes and synthetic resins.

Research and development plays a major role in the Company which has proved its worth with its introduction of synthetic insulations in lieu of conventional cellulosic insulations.

With its export of Rs. 109.1 million, the firm is right on top of the list of member-exporters.

Mr. R. J. Belhe, Managing Director, Dr. Beck & Co., being awarded the Council's Highest Award for export for the third time.

HYDERABAD ASBESTOS CEMENT PRODUCTS LTD., HYDERABAD.

Shielding from fire.

Thirty years of experience and an annual turnover of Rs. 950 million tells its own story.

Hyderabad Asbestos Cement Products, is a pioneer in its field and its range of products include roofing sheets, pressure pipes, asbestos millboard, hysil thermal insulation blocks and jointings.

The Company's emphasis on R&D ensures the resultant quality of its products, which are exported to more than 22 countries.

In the last year, its export earnings reached Rs. 33.4 million bringing to it the second highest Export Award of the Council.

Mr. K. H. Gangwal, Vice President, Hyderabad Asbestos Cement Products receiving the second Highest Export Award of the Council.

Mr. K. K. Jain, Chairman, K. K. Rubber, receiving Capexil's Top Export Award for the Small Scale Sector.

K.K.RUBBER CO. (INDIA) PVT. LTD.,NEW DELHI.

Stretching from Asia to Africa to Europe.

Stepping into the export arena in 1975 – 76, K.K. Rubber today exports its quality rubber beltings to Asia, Africa and Europe.

1982-83 saw its export earnings at the Rs. 32.5 million mark, an incredible increase of 119.4% in one year.

Till date, the Company has won two Certificates of Merit and three Special Export Awards.

This year it proudly carries home the CAPEXIL Top Export Award for Small Scale Sector.

SPECIAL EXPORT AWARD

MODI RUBBER LTD., GHAZIABAD.

A Gripping future.

Mr. V. K. Modi, Vice Chairman & Managing Director of Modi Rubber, receiving the Special Export Award.

Modi Rubber Ltd., in collaboration with the world renowned M/s. Continental Gummiwerke of Hanover, is one of India's foremost tyre manufacturing companies.

In its 8-year life span, despite competition from other multinational firms, Modi Rubber has captured overseas markets, undertaken expansion programmes and now has definite plans for further acquisition of foreign markets.

The Company exports tyres to the sophisticated markets of USA, UK, USSR and others.

In 1982-83, Modi Rubber's export earnings touched Rs. 31.5 million.

MAGNUM INTERNATIONAL TRADING CO. (PVT.) LTD., NEW DELHI.

Twice in one go.

MITCO has won 2 Special Awards for 1982-83. One for Rubber Beltings and Hoses group and the other for Merchant Exporters–Export House Sector.

The Company deals with bicycles, bicycle parts, handtools and artificial jewellery in the Middle East and Africa, and handles trade worth Rs. 100 million with them.

1982-83 brings MITCO, CAPEXIL's Special Export Award for its Rs. 63.7 million export earnings, which is approximately 28% of India's total export of beltings.

Mr. P. K. Anand
of Magnum International Trading, Co.
receiving the Award
from the Hon'ble Minister of Commerce.
MITCO has won two Awards in 1982-83.

FENNER (INDIA) LTD ., NEW DELHI.

Geared to fan growth.

Mr. D. K. Dutta, Sales Director,
of Fenner India Ltd.,
receiving the Award from Shri V.P. Singh.

Continuous efforts to update technology have enabled Fenner India Ltd. to export Rs. 33.8 million worth of V and Fan belts, textile cots, aprons and synthetic rubber oilseals to USSR, GDR, UK, France and others. Capexil's Special Export Award goes to them for their performance during the year.

ENKAY (INDIA) RUBBER CO. PVT. LTD., DELHI.

A wealth of products.

Mr. D. K. Jain, Director,
Enkay (India) Rubber Co.,
receiving the Award.

Manufacturing sophisticated products like hot water bottles, rubber mats, seamless latex bladders and others, under the world famous brands 'CORONATION' and 'ENKAY', the Company has tapped a large export market in UK, Europe and Australia. Rs. 15 million worth of export, of which hot water bottles alone has brought in Rs. 8.7 million,proves Enkay Rubber's very creditable performance and justifies its winning the Special Export Award for 1982-83.

DECCAN ENTERPRISES PVT. LTD., SECUNDERABAD.

Two together.

Deccan Enterprises exported items worth Rs. 18.9 million last year, and has won two Special Awards for 1982-83; one for Miscellaneous Rubber Product group and another for the Small Scale Sector.

The Company exports various types of industrial and moulded rubber products to more than 15 countries in the Middle East, Africa and Europe.

It has recently diversified to new products such as rubber flooring tiles, high pressure seals and rubber bonded items.

Mr. O.P. Jalan, Managing Director
of Deccan Enterprises
receives one of the two Awards
his company has won this year.

JG VACUUM FLASKS LTD., PUNE.

More Quality in Vacuum .

Every step of production undergoes stringent quality control checks which ensure the Company's ready market for its vacuum flasks and flasks refills.

The products have been so well received in W. Germany, USSR, Switzerland, Belgium and Sweden that export earnings have jumped from a mere Rs. 2 million in 1971 to Rs. 15.9 million in 1982-83, a seven-fold growth.

Mr. Rahul Agarwal, Chief Executive of JG Vacuum Flask's Ltd., receiving the Award from Shri V. P. Singh.

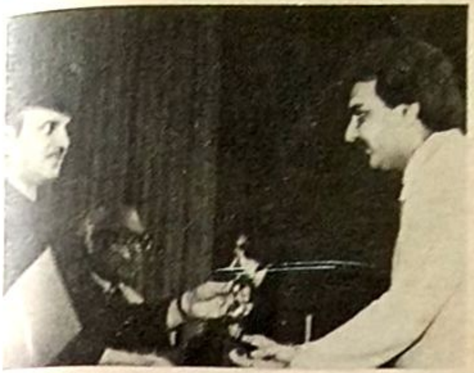
BANARAS BEAD MANUFACTURING COMPANY., VARANASI.

One more to a growing collection.

The Company, a leading manufacturer of glass beads, exports to U.K., France, Spain, Italy, W. Germany and others. Having entered into a technical collaboration with Japan for the manufacture of automatic beads and successfully opened a new unit, the Company's export of glass beads, false pearls etc. reached Rs. 8.6 million during the year.

Mr. A. K. Gupta, Managing Director, Banaras Bead Mfg. Co., being awarded the Special Export Award.

NITCO TILES PVT. LTD., BOMBAY.



Mr. V. Talwar, Director of NITCO Tiles receiving the Award from the Hon'ble Minister of Commerce.

Paving its way to success.

Yet another Special Export Award winner is the eleven – year old NITCO Tiles, manufacturer and exporter of Terrazzo tiles. The product is famed for its quality, an attribute that has been sustained through the years. With its plans for growth, the Company has recently diversified into the production and export of cement paints.

In 1982-83 NITCO'S export earning reached Rs. 6.3 million.

THE INDIAN RAYON CORPN. LTD., CALCUTTA.

(Jayashree Insulators Divn.)

Not insulated from growth.

Set up in collaboration with Czechoslavakia, Jayashree Insulators has two manufacturing units, one in Rishra (West Bengal), the other in Halol (Gujrat). The Company has also recently entered into technical collaboration with M/s. Doulton Insulators, UK, to aid its developing and diversification programme.

This year's award goes to them for their 1982-83 performance that registered a Rs. 18.2 million earning of foreign exchange.

Mr. L. N. Rawat, Sr. Vice President of Indian Rayon Corpn. receives the Award on behalf of the company.

VIKAS PUBLISHING HOUSE PVT. LTD., NEW DELHI.

More than book knowledge.

More than 300 titles are published by the House of Vikas every year. Not just best sellers, but a growing list of school text books, educational books and paperbacks under the name "Tarang" that deal with varied subjects ranging from astrology to memoirs, fiction to yoga.

Set up in 1969, Vikas Publishing has been dubbed "something of a Legend" by Washington Post.

In the last year, the firm exported books worth Rs. 18 million. Certainly the CAPEXIL Special Export Award is a well deserved one.

Mr. Narendra Kumar, Managing Director, Vikas Publishing House receives the Special Export Award.

P. LEINER & SONS (INDIA) PVT. LTD., BOMBAY.

A winner to contend with.

One of the few companies that deal with crushed bones, P. Leiner has won CAPEXIL's Export Award for its transactions in UK, Europe and Japan.

The Company is on the lookout for new products that can be exported. Alongside it assists smaller Indian suppliers to put up their own mills. Its continuous growth reads Rs. 6.1 million in 1980-81, Rs. 7.3 million in 1981-82 and now Rs. 13.8 million in 1982-83.

Mr. M. L. Mehta, Director, P. Leiner & Sons, receiving the Special Export Award.

INDIA GELATINE & CHEMICALS LTD., BOMBAY.

Once again for India Gelatine.

Ossien and its by-product Di-Calcium Phosphate are exported to USA, UK, Japan and the Republic of Korea.

India Gelatine, the Company that went into collaboration with Japan in 1973, wins this year's Special Export Award for its Rs. 29.1 million export earnings.

Mr. C. H. Mirani, Joint Managing Director of India Gelatine & Chemicals, being awarded the Special Export Award by Shri V. P. Singh.

PREMIER ENTERPRISES, CALCUTTA.

Packing in Quality.

With emphasis on safe packing, timely delivery and good quality, Premier Enterprises, is sure to be a long term winner. A major exporter of tea chest panels, the Company wins CAPEXIL's Special Export Award for 1982-83. This year, its export earnings are Rs. 2.9 million.

Mr. H. K. Choudhury of Premier Enterprises being awarded the Special Export Award.

PATEL VENEERS (PVT.) LTD., COCHIN.

Absolutely tops.

Just two years in their field and already the largest manufacturer of rosewood decorative veneers in India, the Company started commercial production in December 1981, and in the very next year exported one million sq. metres of veneer valued at Rs. 11 million.

This year, with its export of Rs. 10.8 million, it wins CAPEXIL's Special Export Award.

Mr. K. P. Patel, Director,
Patel Veneers (Pvt.) Ltd.,
receiving his Award from Shri V. P. Singh.

THE WESTERN INDIA PLYWOODS LTD., KERALA.

Plying its trade competently.

One of the largest of its kind in India, Western India Plywoods lays stress on quality control and new innovations.

The Company is awarded the Special Export Award for its transactions in commercial, decorative, marine, aircraft, hardboard, laminated, diversified wood and modern knocked down furniture. Last year's exports totalled to Rs. 7.8 million.

Mr. V. V. Parmeswaran, Export Executive, Western India Plywoods, receiving the Special Export Award.

HINDUSTAN ELECTRO-GRAPHITES LTD., NEW DELHI.

Conducting changes in the market.

This unit of the Bhilwara Group of Industries has matched fierce competition from Japan, France, Germany and USA and exported Rs. 27.5 million worth of products, bagging Capexil's Special Export Award.

Mr. L. N. Jhunjhunwala, Chairman,
Hindustan Electro-Graphites Ltd., being awarded
the Special Export Award.

◆

Other Special Export Award winners from different panels/product groups.

M/s. Bata India Ltd.

M/s. Garware Paints Ltd.

M/s. Goodlass Nerolac Paints Ltd.

M/s. Sudarshan Chemical Industries Ltd.

M/s. Ballarpur Industries Ltd.

M/s. Elite Optical Industries,

M/s. Indian Barytes & Chemicals

M/s. Macmillan India Ltd.

M/s. UBS Publishers' Distributors Ltd.

M/s. Balkrishna Traders

M/s. Jawahar Saw Mills

Certificate of Export Recognition

Awarded to

in recognition of their export achievement in respect of

during the year

Date

Certificate of Merit Winners 1982-83.

Addi Krafts Pvt. Ltd.
Addisons Paints & Chemicals Ltd.
Allied Publishers Pvt. Ltd.
Andhra Pradesh Mining Corpn.
Apex Industrial Corpn.
Arasan Match Industries.
Ashapura Minechem Pvt. Ltd.
Asia Glues & Chemicals Pvt. Ltd.
Asian Paints (India) Ltd.
Atul Glass Industries P. Ltd.
Bharat Grinders.
Bharat Heavy Electricals Ltd.
Bharatkumar Patel & Co.
Billy Boot Polish Co.
Ceat Tyres of India Ltd.
Chatwani & Shah Pvt. Ltd.
Chhatariya Rubber & Chemical Industries.
Colour - Chem Ltd.
Delhi Interexports (P) Ltd.
Dunlop India Ltd.
Eagle Flask Pvt. Ltd.
Elgi Rubber Products Ltd.
Fire Equipment Corpn.
Glass Minerals.
Goodyear India Ltd.
Gopal Krishna & Bros.
Grindwell Norton Ltd.
Hind-Nihon Proteins Pvt. Ltd.
Hindustan Lever Ltd.
Hindustan Sanitaryware & Industries Ltd.
Hindustan Vacuum Glass Ltd.
Hindusthan National Glass & Industries Ltd.
Hitkari Potteries Pvt. Ltd.
Hunsur Plywood Works Ltd.
Indian Plywood Mfg. Co. Ltd.
Interads Export Division.
International Industries.
Jayashree Textiles.
Jenson & Nicholson (India) Ltd.
K.K. International.
Kalpana Agencies.
Karimjee Pvt. Ltd.
Karnatak State Veneers Ltd.
Kerala Chemicals & Proteins Ltd.
Kerala Trades & Exports (Regd.).
Kutub Khana Ishayat-ul-Islam (Regd.).
M. J. Exports Pvt. Ltd.
MRF Ltd.
Mahalakshmi Glass Works Pvt, Ltd.
Metal Engineering & Treatment Co.
Micro Abrasives (India) Ltd.
Motilal Banarsidass.
Newage Hose, Mfg. Co.
Nirlon Synthetic Fibres & Chemicals Ltd.
Orient Abrasives Ltd.
Patel Babulal Pranlal & Bros.
Precision Rubber Industries Pvt. Ltd.
Prince Rubber Industries.
Punjab Bone Mills.
Punjab Rubber & Allied Industries.
Raghbir Cycles (P) Ltd.
Ram Narain & Bros.
Raymon Glues & Chemicals.
Reckitt & Colman of India Ltd.
Selective Minchem & Color Industries.
Shree Vallabh Glass Works Ltd.
Sigma Paints Ltd.
Star Publications (Pvt.) Ltd.
Studio 3.
Sunrise Furniture Service.
Tribeni Tissues Ltd.
Triveni Sheet Glass Works Ltd.
U.K. Paint Industries.
United Veneers (Pvt.) ltd.
Victory Flask Co. Pvt. Ltd.
Wood Systems (India) Pvt. Ltd.

Mr. I. H. Padamsee, Chairman,
Capexil,
addressing the Annual General Meeting

Shri P. K. Jana,
Executive Director,
Capexil, announcing the names of
Export Award winners.

For 26 years, bringing
the best from India to the World

Council's Overseas Correspondents:

C.P. Goonetilleke
15, Davidson Street
Colombo-4
Sri Lanka

M.K. Unnithan
31, Unakan Road
P.O. Box. No. 975
Bangkok
Thailand

M/s. Dolly Enterprises
P.O. Box 6061
3-C, Hyde Centre
221-226 Gloucester Road
Hong Kong

Chemicals & Allied Products Export Promotion Council
"World Trade Centre" (2nd floor)
14/1B, Ezra Street
Calcutta-700 001
Dial : 26-7733/34/35
Grams : CAPEXIL
Telex : CAPEXIL 021-2486

Council's Regional Offices in India
Western Region
Commerce Centre
Block No. D-17, Tardeo Road
Bombay—400 034
Dial : 37-4410
Telex : 011-5191
Southern Region
Rasheed Mansion
622, Anna Road
Madras—600 006
Dial : 82310
Northern Region
Lakshmi Niwas
8, Saheed Bhagat Singh Marg
New Delhi—110 001
Dial : 31-0346
Telex : 031-2237
Eastern Region
Tobacco House
1 & 2, Old Court House Corner,
Calcutta-700 001
Dial : 22-7620

WOMEN: THE ANIMALS OF KHOMEINI'S IRAN

By Khandan Aryan

A mother describes persecution and humiliation stoically endured under Khomeini—until the mullahs reached for the very soul of her young daughter

"Death to America! Death to Iraq! Death to the Mujahedeen Guerrillas! Death! Death! Death!"

The little girl was dressed in the *hedjab*, the Islamic clothing that is now the obligatory uniform for females in revolutionary Iran. Her pretty hair and most of her face were masked by a tightly wound scarf. She was jumping around the room with the energy of children everywhere. But the joy had been wrung from her seven-year-old mind. She had been remodelled into a kind of juvenile robot, mouthing the morbid obsessions of the aged religious fanatics who now rule Iran.

Horror welled up within me: *What are they doing to my daughter?*

It was the spring of 1982, and my Parmis and I were alone in our Teheran flat. My husband Fereydoon, a pilot, was off on another international flight for Iran Air. For months he had been arguing that we must leave

PHOTO: MAOLS/GAMMA-LIAISON

Iran. Now, for the first time, I saw with terrifying clarity that he was right.

Iran under the Ayatollah Khomeini had become a country where every aspect of life was dictated in minute detail by the mullah's twisted interpretation of the Holy Koran and Islam—a religion that in reality teaches peace, love and forgiveness.

Not satisfied with total political power, now the mullahs were brainwashing the children, turning them against their parents, sending them off to die in the war. Seeing now my own Parmis changing before my eyes, I knew that the hopes my fellow Iranians and I had invested in the Ayatollah revolutionary regime were as good as dead.

Having received my master's degree in city planning just before the revolution closed down Teheran University, I had gone to work as an economic analyst for the national television network. The job was all right until the mullahs appointed a young man to head my department. He was not qualified, but he was very religious and that was enough for them. In his late twenties, he would not look at women, shake their hands, wouldn't let them enter his office. One of his first acts was to sack all females who appeared on camera—they weren't fit for that, he said. Then he directed all women in the department to wear traditional Islamic costume.

Terror and Humiliation. I for one was willing to wear the *hedjab*—a long tunic with trousers under it and a scarf on the head—if it would help the new order restore public morality. But our department head insisted we must cover our faces from just above the eyes and then wrap our scarves around again to cover our chins. One lock of hair showing was an intolerable provocation. He also segregated doors, stairways and working rooms; women entered at the back of the building and walked up to their offices, while the men came in through the front door and used the lifts.

One suffocatingly hot summer day the guards who inspected us at the back door stopped a friend of mine who was covered in black from head to toe, but because of the heat had left off the obligatory black woollen socks. A tiny patch of ankle was showing. The guard called her a prostitute and threatened to send her to prison. She left her job and never came back.

Working women are so systematically terrorized, humiliated and degraded in Iran today that most finally do give up and stay at home—and that of course, is the aim of the Khomeini regime.

I lasted less than a year at my television job. When the harassment and humiliation became too much, I transferred to the national radio station hoping conditions

"Mummy, is this a new toothpaste?"

Binaca
Fluoride
toothpaste
Binaca
Fluoride

No! It's your old favourite Binaca Fluoride in an attractive new pack.

Binaca Fluoride actually combines with tooth enamel to toughen your teeth. Arrest tooth decay, prevent painful cavities. Make sure you get Binaca Fluoride protection. Today.

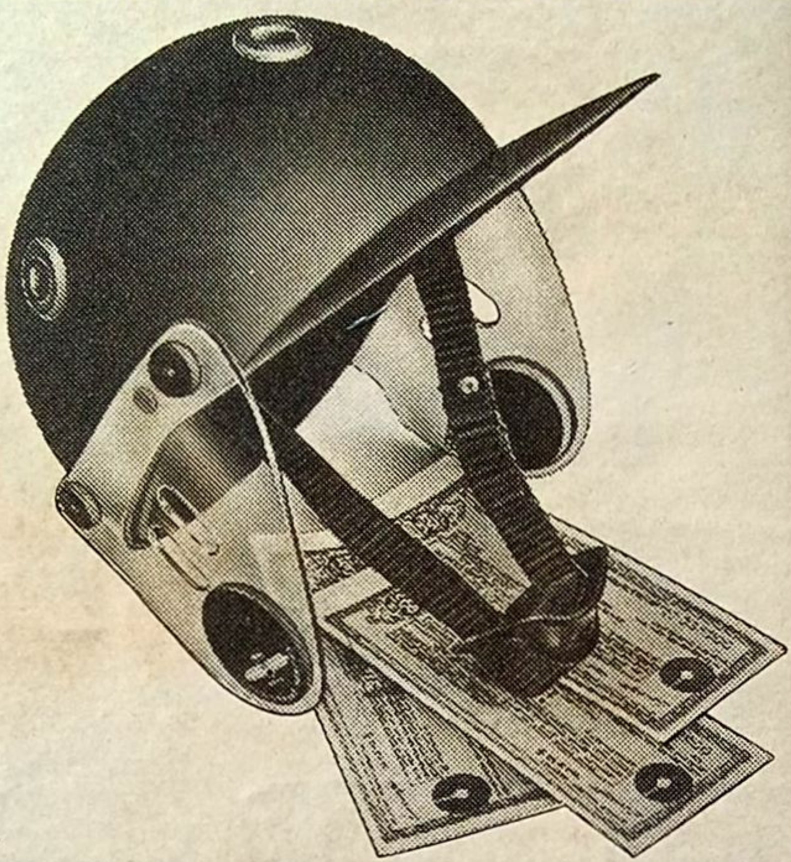
Add life to your teeth with

Binaca® Fluoride
toothpaste

India's first and foremost fluoride toothpaste

ULKA-HCG-4-84

Why is a travellers cheque so much like a batsman's helmet?



Both serve as protective gear when you're out playing. Both have proved their utility. There are a lot of grateful batsmen and frustrated pickpockets to prove it. And both give you an immense degree of confidence. An emotion so vital, it can make all the difference to your play.

Carry Travellers Cheques.
Almost nothing protects your money better.

State Bank
Let's come closer

HTB-SBI-9916

would be better. But the Islamic orthodoxy was worse there than at the television station. The secretaries were even forced to wear black gloves when they typed, so that they wouldn't show their "provocative" bare hands.

In the summer of 1981, disgusted and discouraged, I too gave up my job. But that did not mean I escaped constant humiliation. Nothing less than total submission seems to satisfy the mullahs and the Islamic guards. On Teheran walls advertisements for soft drinks or washing machines were replaced by such slogans as "A man whose wife does not wear the *hedjab* is a man without honour." Or "Donkeys and cows do not wear the *hedjab*—are they progressive?"

Wherever you go in Iran, the mullahs have spies. With the economy in shambles, women have to start standing in line for food at 5am. Even in the marketplace, the revolutionary guards are watching and listening. If you complain, they take you away to prison for "agitating society."

Family Entertainment. The guards' motorized patrols—the "motorcycle men," we call them—caught a woman wearing lipstick on our street. They cut her lips with a knife, as a lesson for the rest of us. In Iran a woman is not safe even walking with her husband. The Islamic guards can stop the couple and demand to see their marriage papers. In the spring of 1982, the guards challenged a Teheran couple who did not have their papers with them. They held the wife while the husband went home to fetch the papers. On his way back he had a car accident. When he finally got out of the hospital he discovered that, in the absence of marriage papers, his wife had been executed as a prostitute.

The Aryan family

In Khomeini's Iran, women can hold no executive positions in the government or the civil service; in court proceedings the testimony of a man alone is worth that of two women corroborating each other. For the mullahs, women are not of the same race as men; indeed, Khomeini speaks of "a human being marrying a woman." Women today are the animals of Khomeini's Iran.

Traditionally, Islam shows

great respect for the family, but all that is gone now in Iran. In the communications media the same theme is repeated over and over again: children should denounce parents who speak out against the regime, and parents should voluntarily give up their children if they are considered anti-revolutionary. One mullah sent two of his own sons to be executed. The mullahs' idea of family entertainment is to arrange public hangings. Bring the children, they say. The victims are hung from a construction crane and swung around so everyone can get a good view.

Fereydoon and I tried to shield our child from all this horror, but little by little the mullahs got her, too. Her first hour of morning classes at school was devoted to chanting slogans, and the slogans always had to do with death.

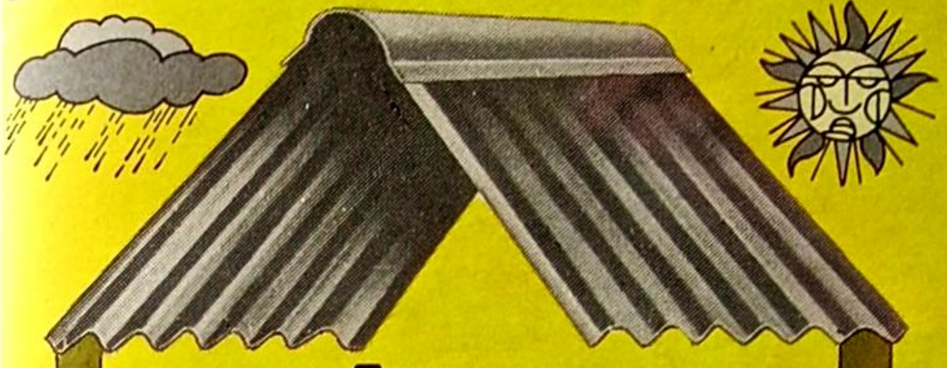
Sometimes Parmis and her classmates were made to sit in a darkened room and watch as the teachers brought in a tombstone. On the walls they pinned photographs of soldiers killed in the fighting with Iraq, heads cut off, bodies hideously mangled, limbs missing. One by one, each child had to look at the photographs, and then say a prayer of vengeance on the tomb of the martyrs.

Savage Mistreatment. Soon the mullahs went on to the logical next step of using Iranian children as cannon fodder. Today they are sending nine-year-old children to the war front, sometimes driving them ahead of the troops to explode the mines. They give these children little keys with which to open the gates of paradise.

Iranian women have begun to rebel. If you can be whipped to death for just walking with a man, as happened to a girl in the northern town of Chalus, or have your mouth mutilated for using lipstick, or see your ten-year-olds being taken off to war, what can you do? You can keep quiet and accept it, and little by little become a robot; you can flee, as Fereydoon and I did; or you can fight back.

One day in a building near ours the Islamic guards cornered two Mujahedeen, the anti-Khomeini guerrillas. The guards brought in reinforcements, surrounded the building and shot at it for six hours. When the shooting was finally over and the Mujahedeen were brought out, we were amazed to discover that there were only two, and they were girls. One was already dead, the other was alive, but she had taken the cyanide capsule that the guerrillas often carry. She died quickly.

Young female guerrillas try to commit suicide when caught because they know that savage mistreatment, including torture and rape, lies in store for them. Rape is routine—and not just to give per-



Rain or Shine

Arasu
Asbestos Sheets perform.
All along.

Corrugated and Semi-Corrugated Sheets

Thanks to the imported fibre and high quality Arasu Cement that go into the making of Arasu Asbestos Sheets. No wonder more and more people are turning to Arasu Asbestos Sheets.

ARASU ASBESTOS TANCEM
Tamilnadu Cements Corporation Ltd.
735 Anna Salai,
Madras-600 002
Factory: Tamilnadu Asbestos
at Alangulam
Via. Rajapalayam,
Ramnad District
Pin Code No. 626127
Branch Offices:
C/o. Kerala State
Warehousing Corpn. Ltd.
Trippunithura
Ernakulam Dt. Kerala

17/6 Hosur Road
Bangalore-560 027

DIPR. : 211/84-EP.

Arasu Asbestos Cement Sheets. Sheer strength inside. And outside.

verted pleasure to the Islamic guards. Many of the captured Mujahedeen girls are virgins, and religious tradition says that virgins are innocent and thus automatically go to paradise. Rape, in the view of guards, prevents this ultimate grace.

After Fereydoon and I agreed that it was time we got out of Iran, slowly and cautiously he started to make contacts to find someone who could take me across the border with Parmis. Once we were safely out, he would join us after one of his international flights. Later that spring when a good friend of ours was arrested and executed for "anti-revolutionary activities," we knew we could delay no longer.

In late June, Fereydoon announced that we were going to spend some time in Kerman with his family. Not even close friends could be told the truth. On the chosen day, Fereydoon drove Parmis and me west of Teheran to the spot where we were to meet guides. Fereydoon and I looked at each other for a long moment: would we ever be together again? That evening Parmis and I were taken to a house by the border and told to sleep.

At two in the morning, our next set of contacts awakened us. There in our little room I explained to Parmis that she mustn't make even the smallest sound during our escape because the frontier guards might shoot us. She nodded gravely. Perhaps she had known along that something was wrong in Iran. She never let out a peep.

By the third day we were safely out of Iran. A contact telephoned Fereydoon in Teheran to tell him that his "shipment of dried fruit had arrived in good condition." On his next flight—it happened to be to Amsterdam—Fereydoon walked away from his plane and from Iran.

Today, Fereydoon, Parmis and I live in Western Europe, trying to build a new life for ourselves. Parmis is a real little girl now, with childish pleasures and spontaneous laughter. Whenever I feel sorrow for everything we left behind, I look at a photograph I took in our flat in Teheran of my little girl wearing the *hedjab*, scarf wound around her head, her mouth set in a stern grimace, her eyes cold and hard. One glance tells me we acted just in time.

* * *

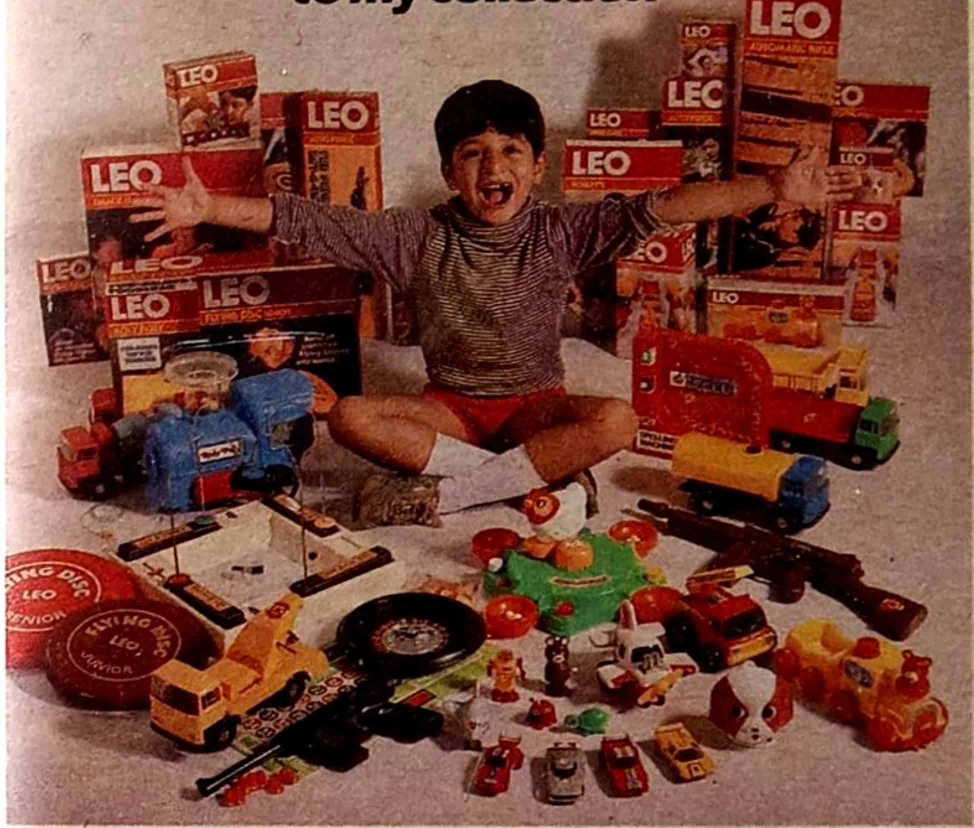
Too Funny

"How do you like our mouse-trap?"

"It works just fine. This morning there were two mice lying in front of it. They had laughed themselves to death over the device."

—Daniel Gloor

**Wow!
More and more Leo toys to add to my collection**



Just look at the exciting new toys in the Leo range. Wind-up wonders . . . miniature replicas that look and work just like the real things. Pull-back speed cars with die-cast bodies and realistic detailing. A range of musical marvels for lively toddlers . . . for the first time in India. Lay-an-egg, a battery operated game . . rollicking fun for the whole family. All this in addition to the guns, cars, trucks, games and puzzles that the Leo range already offers.

Toys that amuse. Toys that delight. Toys that excite and educate. Toys for all ages. In an ever-growing range. From Leo.

Leo toys open up a whole new world of imagination, fun and happiness for your child. Attractive, sturdy, yet safe to play with. Toys like never before.

Brought to you by
Blow Plast Ltd.
Agency & Plastic Products Div.
V.I.P. House, Prabhadevi,
Bombay 400 025.

LEO TOYS
Toys that care.
Because you care

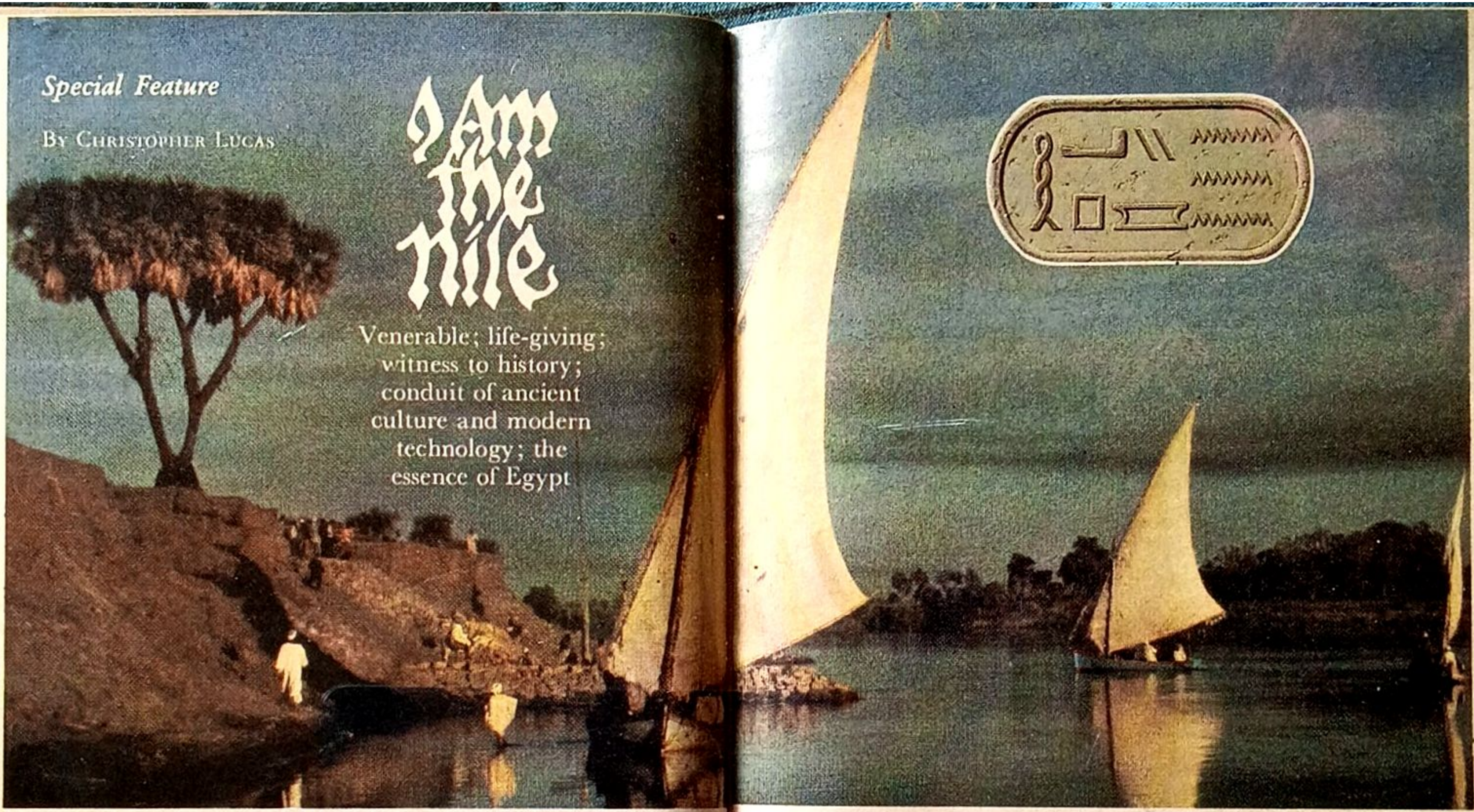
Contour Ads-BP-584F/83

Special Feature

By Christopher Lucas

I Am the Nile

Venerable; life-giving; witness to history; conduit of ancient culture and modern technology; the essence of Egypt



I AM AS OLD as creation, as majestic as space, as useful as the wheel. I am also immense, beautiful, historic and as evocative as poetry. I'm the world's longest, mightiest river, the Nile.

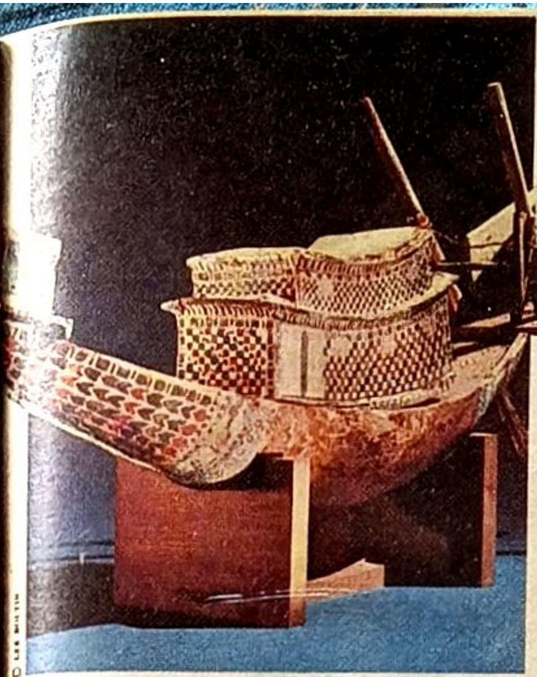
Coursing through the parched desert lands of North Africa, from time immemorial I have been the artery that brings my riverine peoples their life-blood: water. Rich with fish and life-giving silt, my waters allowed them to flourish, to turn from the primeval battle for survival towards religion, science, the arts. And so, 7,000 years ago, my green valley was a cradle of civilization.

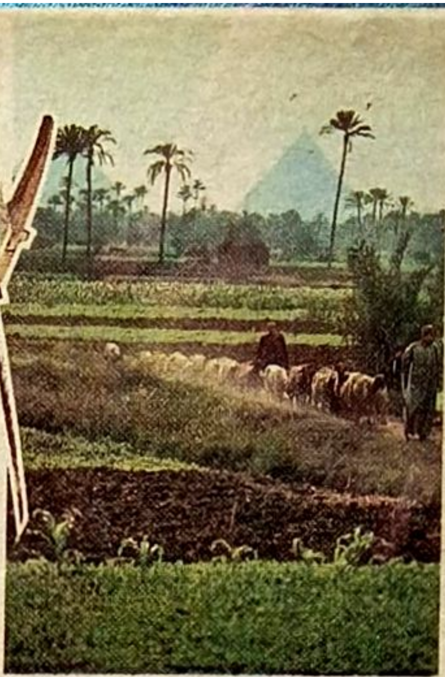
Year after year, my floods come like clockwork. I flow 6,670 voluptuous kilometres from the equator to the Mediterranean and sweep across nine sovereign nations. Yet my heart lies in Egypt. I provided not only the means but the spur for that glorious outburst of civilization. My favoured people invented a 365-day calendar so they could keep track of the months of my flooding.* They developed geometry so they could lay out ditches and canals to contain my irreplaceable waters. And to co-ordinate all these efforts they

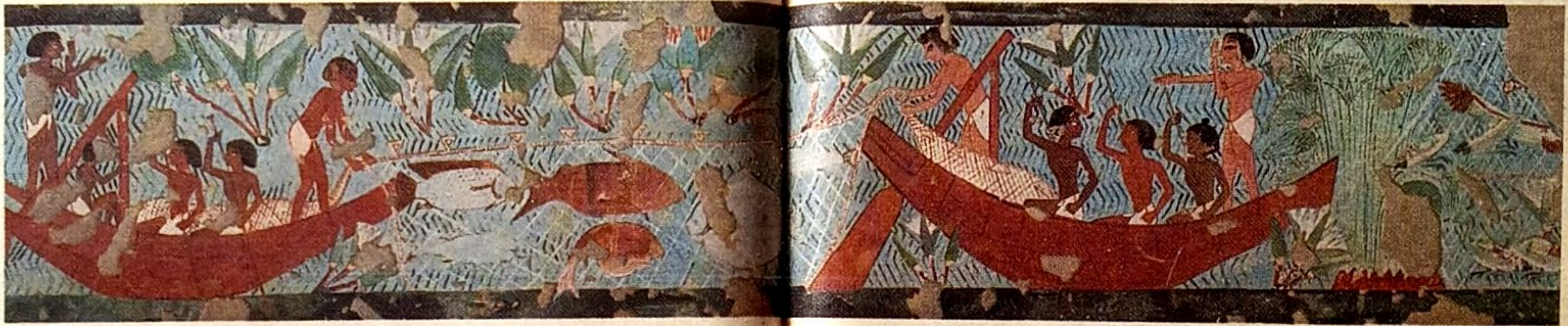
---

*The calendar was adopted in 4241 BC, which some consider the first known date in history.

© ERICH LESSING/MAGNUM


© LEE BOLTIN


NIK WHEELER/BLACK STAR


THE METROPOLITAN MUSEUM OF ART, ROGERS FUND 1930

created government.

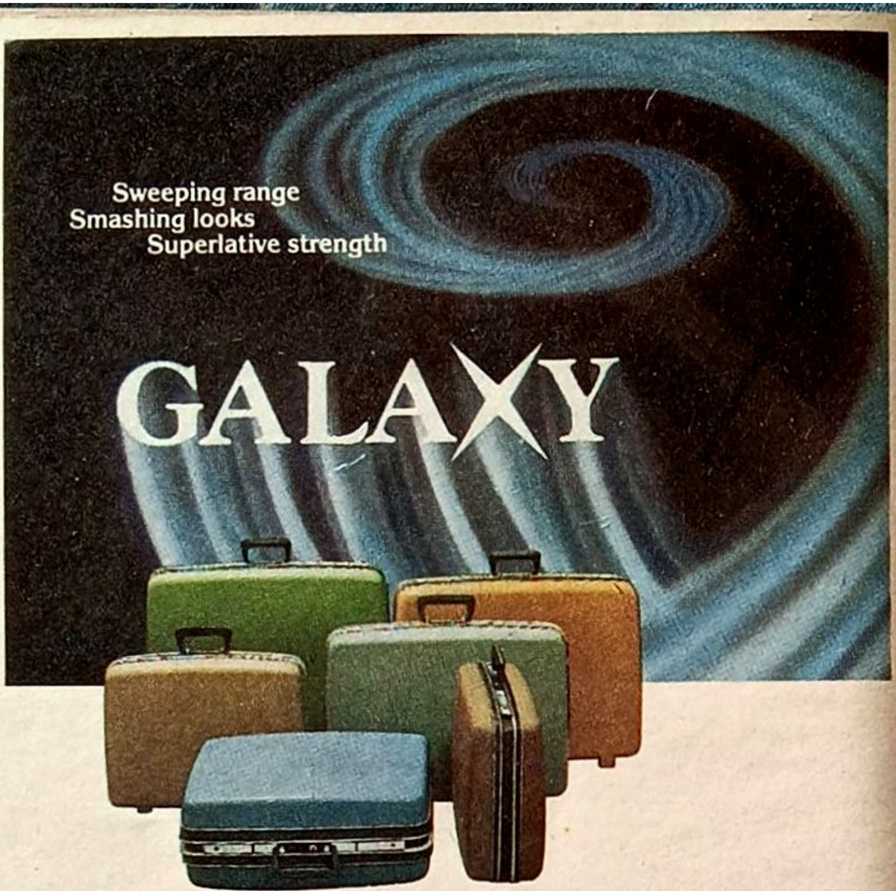
My origins mysteriously evaded explorers from the beginning of time. Not until the nineteenth century was it finally established that I had *two* sources, that I am, in fact, two rivers of sharply differing tempers.

As the White Nile, my longest arm, I gurgle forth 2,621 metres up in tropical central Africa, in the mountains of southern Burundi. I slip in and out of gigantic Lake Victoria, churn through the dark jungles of Uganda, plunge down mighty Murchison Falls, then emerge in the hot, dry wastes of the Sudan. Here crocodiles still hunt my waters and hippos romp. Ever northwards, I struggle through the fearful, 725-kilometre papyrus swamp known as the Sudd, and come out full-grown, a slow, ponderous, even stately presence.

My wilder arm, the Blue Nile, rises at about 2,000 metres in Ethiopia's distant highlands. It

Top, from left: A fellah (farmer) works along the Nile bank near Luxor. This 94-centimetre-long model barge, found in King Tutankhamen's tomb, may have been intended for the King's pilgrimage in after-life. Behind the fellahin (farmers) and their sheep rise two of the three pyramids at Giza

Panel across: Copy of an Egyptian wall painting from the Tomb of Ipuy, Thebes depicting a fishing scene



The new super luggage from Safari

Galaxy is impeccably designed and completed, down to its smallest detail. Its unique buckle-down floating flap ensures clothes stay just the way you packed . . . The famous Safari 6 lever vault lock assures total security . . . Convenient detachable wheels glide over any surface . . . and its tough and light body is built to withstand even the roughest treatment . . . But this is just part of the story!

Galaxy comes to you at a price you'll find hard to believe. In colours harder to resist. Like the recently introduced silver grey, almond and mushroom. Or the striking variations of earth, sky and fern. All available to you in five fetching sizes — 18, 21, 24, 26 & 28.

Unique buckle-down floating flap

Extra safe 6 lever vault lock

Convenient, detachable wheels

Galaxy from Safari-It's just what you had in mind safari

ULKA-SL-IA-84

crosses Lake Tana, drops over the mist-swept Tisisat Falls, then for 650 kilometres boils and foams through the virgin forests of a 1,220-metre-deep gorge, eventually escaping into the stifling heat of the Sudan. In the desert, I grow wilder, warmer, calmer. The sand dunes close in on both banks, yet my strong waters give life to cotton fields as far as the eye can see.

In the very centre of Khartoum, the Sudan's flat, dusty capital, my scrappy half throws itself into its quieter partner. Now I am *the* Nile. There are still some 3,000 kilometres before I reach the Mediterranean.

Many Moods. I plunge into bleak, ochre regions of the Sahara where there is no rain at all—a brown, softly moving flow. Descending towards Egypt, I ripple over a series of long, easy cataracts, then pour into Lake Nasser, 500 kilometres long and the world's largest man-made lake. Below the wind-whipped surface are the vanished villages and fortresses of ancient Nubia, drowned a decade ago by the Aswan High Dam. At last, after rushing fiercely through the Aswan Dam's hydroelectric locks, I slide over the last of my six cataracts, and into the township of Aswan.

Green fields of wheat and sugar cane appear, as do palm trees. This is the beginning of the seductive lushness of Egypt. Aswan, a bustling town of 145,000, hugs my shores. Flocks of storks, pelicans and crested cranes flutter overhead.

© RAY ELLIS/PHOTO RESEARCHERS, INCORPORATED

After crossing Lake Tana, the Blue Nile drops over the mist-swept Tisisat Falls

Guided Tour. Aswan is home port of the sedate, flat-bottomed Nile steamers that carry passengers between here and the delta. I flow at barely walking speed, and am seldom more than a few fathoms deep. As the visitors drift down my placid waters —whose hue magically changes from rust-brown to blue to emerald to deepest purple—the panorama of daily Nilotic life unfolds before them.

On my green banks, bowed men in loincloths hack the five-metre sugar cane with machetes, white egrets by the hundred nestle motionless in a single tree, blindfolded water buffaloes slowly circle their *sakiya* water-wheels. Long columns of camels, laden with fodder, trudge upstream. Boys fish, mothers wash, babies dangle toes. And between tight clumps of riverside palms and eucalyptus cluster earth-brown villages: squat, box-like homes with walled courtyards and domed pigeon lofts, all built with my silt and my clay.

Here, in Upper Egypt, I am 800 metres wide as I glide past Luxor. Lovely, lazy Luxor. Its verdant banks sparkle with trim lawns and gardens ablaze with flame trees and poinsettia. Its 50,000 people, nobly draped in billowing robes, have high cheekbones and honey skins. The desert's edge is as clear-cut as if stencilled. At the last tuft of greenery the first sand-hill begins. Such is the power of my waters.

As I drift northwards into Middle Egypt, my fertile valley rolls inland 25 kilometres, huge green fields of wheat and maize. My faithful farmers, the *fellahin*, may still use Pharaonic hoes and ploughs of wood; yet every square centimetre of the rich soil is lovingly watered and cultivated. Kilometre after kilometre, the *fellahin* crowd my banks, working, resting, sometimes playing. Twice the size of Spain, Egypt has 44 million people, and 97 per cent of them live on less than four per cent of the land—which means next to *me*.

After more than 6,000 idyllic kilometres, I plunge into Cairo, Egypt's tumultuous capital, the biggest city in all Africa. Cairo is chaos: a rowdy, smoky, dusty megalopolis that crawls with ten million people. Its pivotal Tahrir Square swarms like an angry anthill; its traffic is among the world's most lethal. Cairo is so crowded that some people sleep on roof-tops or in riverside rush huts.

Now some two kilometres wide, I pass under six sweeping bridges, admire a shimmering sky-line of slender minarets, graceful cupolas and towering new tourist hotels. Yet even here, clumps of bulrushes and date palms nestle near my banks; and, compared to most great rivers, I still look amazingly clean.

Out of the urban tumult, my mainstream splits into myriad canals and waterways, then flares out into the green fan of the Nile delta.

In this fertile triangle, 240 kilometres across, live almost half of all Egyptians. They reap several crops a year, raising fruits, grains and vegetables, big, juicy grape-fruit, long crunchy carrots.

The fruitful, friendly delta cheers my journey's final kilometres—until suddenly I turn blue, broaden into twin sweeping estuaries and, with barely a ripple, join the waters of the mediterranean. My odyssey is over.

Witness to History. Along my

When it comes to the big crunch, core industries call on Sayaji.

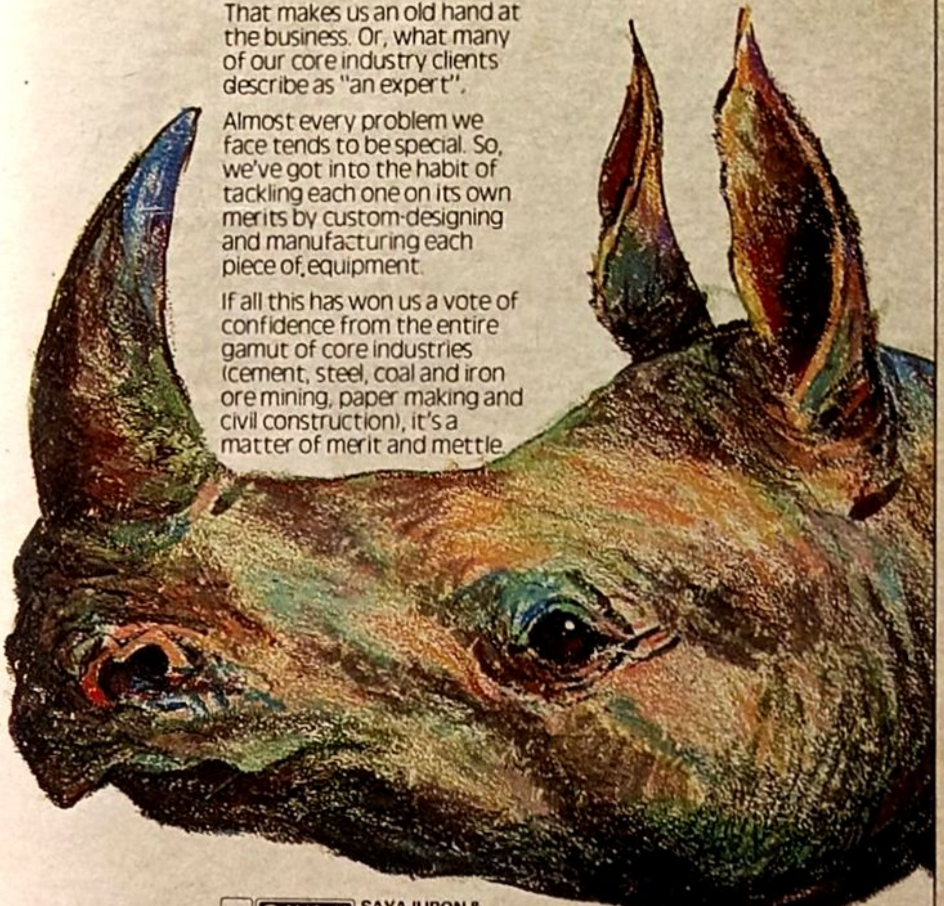
Crushing, grinding, screening and material handling take a lot of doing, a lot of class.

We've been at it for over 40 years.

That makes us an old hand at the business. Or, what many of our core industry clients describe as "an expert".

Almost every problem we face tends to be special. So, we've got into the habit of tackling each one on its own merits by custom-designing and manufacturing each piece of equipment.

If all this has won us a vote of confidence from the entire gamut of core industries (cement, steel, coal and iron ore mining, paper making and civil construction), it's a matter of merit and mettle.



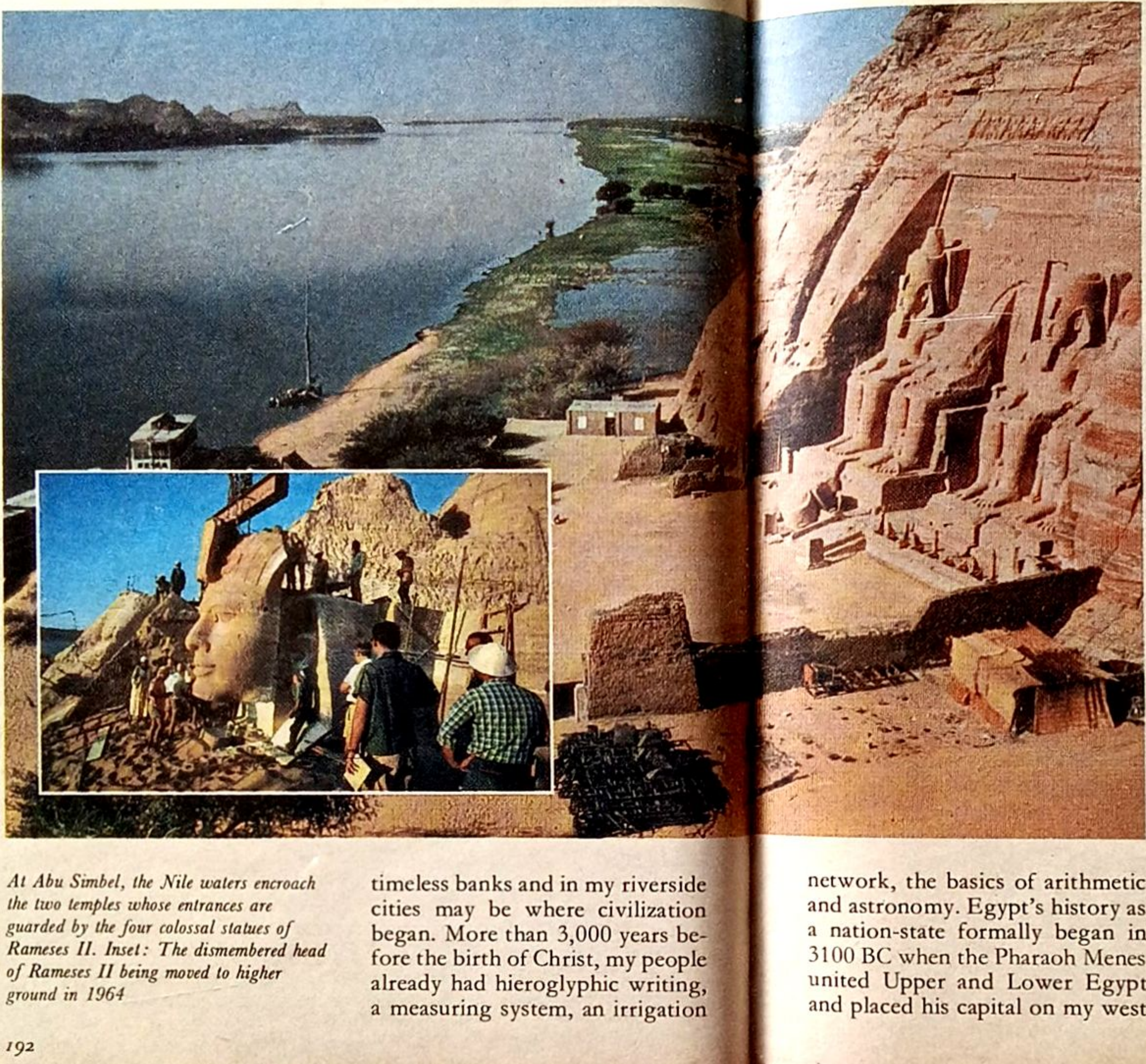
SAYAJI **SAYAJI IRON & ENGG. CO. PVT. LTD.**
Chhani Road, BARODA 390 002, India
Cable: SAYAJICO Telex: 0175-227
Phone: 63511-12 & 67005-6

Branches at Bombay, Calcutta, Madras,
New Delhi, Bangalore, Secunderabad,
Visakhapatnam and Lucknow

SAYAJI

Four decades of experience and turnkey capability in crushing, grinding, screening and material handling.

everest/83/SIE/661



At Abu Simbel, the Nile waters encroach the two temples whose entrances are guarded by the four colossal statues of Rameses II. Inset: The dismembered head of Rameses II being moved to higher ground in 1964

JAMES BURKE/LIFE MAGAZINE © 1961 TIME, INCORPORATED (INSET) © 1965 DR GEORG GERSTER/PHOTO RESEARCHERS, INCORPORATED

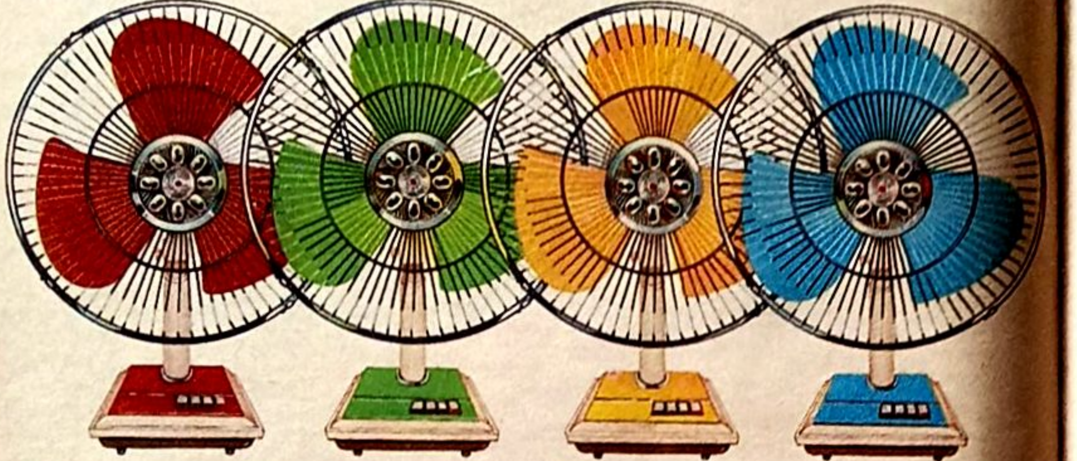
timeless banks and in my riverside cities may be where civilization began. More than 3,000 years before the birth of Christ, my people already had hieroglyphic writing, a measuring system, an irrigation network, the basics of arithmetic and astronomy. Egypt's history as a nation-state formally began in 3100 BC when the Pharaoh Menes united Upper and Lower Egypt and placed his capital on my west bank at Memphis, 30 kilometres south of modern Cairo. During its heyday in the Old Kingdom (2686–2181 BC), Memphis was Egypt's greatest city. Now there are only dusty palms, rubble and a gigantic 10-metre fallen statue of Rameses II.

Outside Memphis's city limits, at Gîza, stands the world's foremost tourist attraction, the incomparable trio of Pyramids—only survivor of the ancient world's Seven Wonders. The Great Pyramid of Cheops thrusts 137 metres into the sapphire sky.

Generally accepted as the most geometrically pure of all monuments, this tomb for a Pharaoh took 100,000 workers two full decades to build. More than 4,000 years later, it is still the biggest stone building in the Old World —with more than two million limestone and granite blocks weighing two and a half tons each—and its construction secrets remain inviolate. Only a few hundred metres distant squats the Sphinx, half-smiling as quizzically as when its was fashioned.

Community Spirit. As centuries rolled by, I served as the indispensable waterway connecting Egypt's provinces, stimulating trade and commerce, helping keep the nation united. Along my banks, people had to co-operate to survive and control my floods —and that meant organization. Notched Nilometres were

SAMIRA From INNOVA®



Looks Colourful. Works Powerful.

Bewitchingly beautiful. Compact. Light-weight. Prime in quality and superb in performance-spreading incessant breeze. And yet, low in price.

That is SAMIRA! A most modern fan of India. The Symbol of Innova's expertise.

Now have a real delight. In the company of Samira. Seasons will change. Years will pass. Samira's caressing, delightful breeze will keep soothing you.

Samira is available in fully assembled condition in an attractive, durable packing.

INNOVA®
ENGINEERING PRIVATE LIMITED.
PLOT NO.140, MAROL CO-OP IND ESTATE LTD; MAROL,BOMBAY-400 059
GRAMS: INNOVEN. PHONES: 6320579 • 6324134.
BRANCHES: MADRAS • AHMEDABAD • INDORE

even placed at fixed intervals to measure the height of my flow.

By the Middle Kingdom 2133—1786 BC), the Pharaohs had moved their capital 650 kilometres south to Thebes, or present-day Luxor. From here, their armies marched forth to establish an extensive empire that survived almost uninterrupted for a thousand years.

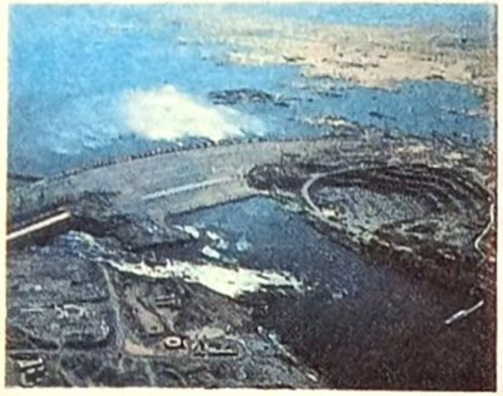
While Europeans still lived in primitive villages, Egypt enjoyed a luminously sophisticated civilization. Their lovely, sloe-eyed women used cosmetics and perfume; the men shaved and, like their women, cut their hair and wore wigs. Highly cultivated, the ancient Egyptians danced, fenced with wooden rods, played music and built 40-oared galleys, the world's first sea-going vessels. They turned agriculture into a science, developed medicine and surgery, produced art of unsurpassed grandeur, and also created a complex yet benign religion with such profound concepts as life after death and a final judgement. In a bad moment, they even thought up bureaucrats, bookkeeping and taxation.

Lasting Proof. Most incredible, many of the physical expressions of this glorious civilization are still there today. In countless tombs and temples, thousands of carved and painted friezes precisely reproduce the lives and beliefs of these long-ago people. Many are masterpieces of the New Kingdom (1567–1085 BC), Egypt's golden age.

Within today's Luxor, ancient Thebes still glows. The old capital's two greatest temples still rise grandly on my east bank. Grandiose Luxor Temple is a massive sandstone agglomeration of monolithic gateways and immense, 16-metre pillars. The smallest toenail of one Pharaoh's statue is big enough to sit on.

Immense Scale. Yet Luxor Temple is as nothing compared with the colossal temple of Amon-Ra, the sun god, at Karnak. It is overpowering, awesome. The stone entrance gate is ten storeys high and 15 metres thick, and the spectacular hypostyle hall encloses a forest of 134 gigantic columns. There are sculpted friezes as long as a football field.

On my west bank stood the Theban necropolis, or city of the dead: more than 800 tombs gouged out of the solid-rock mountainside. And higher up lay the fabled Valley of the Kings, with its 64 known Pharaonic tombs. Here, in 1922, English archaeologist Howard Carter and his patron, Lord Carnarvon, made the strike of the century: Tutankhamen. Although the tomb of only a minor pharaoh who died at 19, it was one of the few to escape the ravages of grave-robbers. It held staggering treasures: 1,750 pieces in all, including Tut's breath-



IMRT/STERN/BLACK STAR

The Nile's huge, grey cement Aswan High Dam revolutionized industry and agriculture

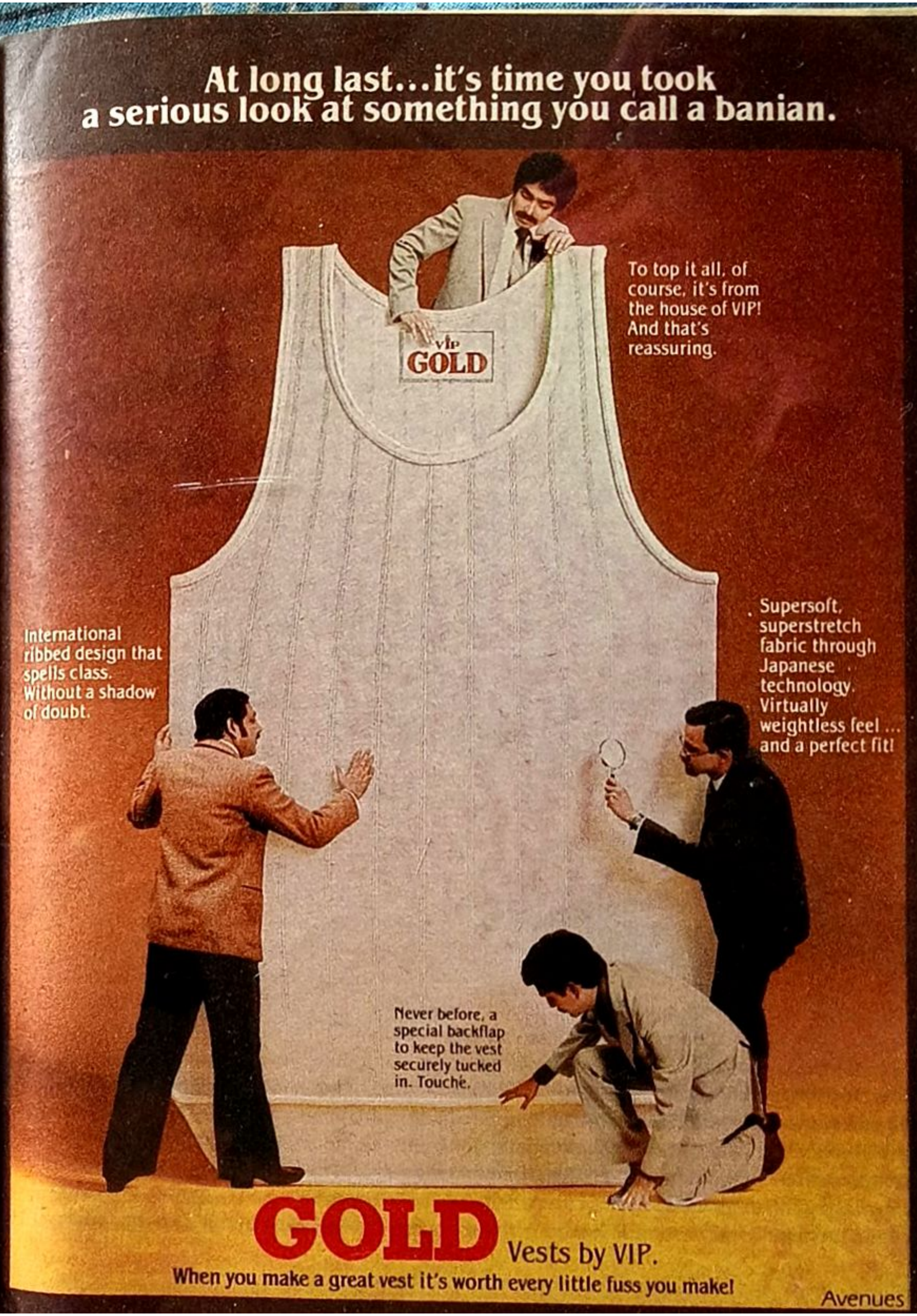
taking funeral mask, an army of gold statuettes and an innermost coffin of purest gold.

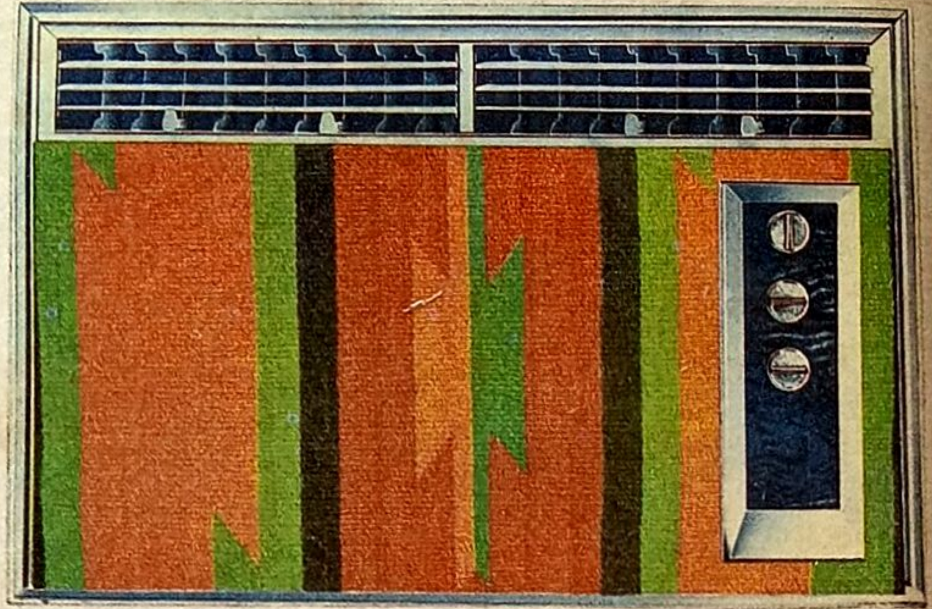
Another of my splendid monuments lies 500 kilometres further south at Abu Simbel, deep in the Nubian desert. Here, for 3,200 years, a towering phalanx of four seated statues of Rameses II majestically dominated my twin banks, guarding the entrance to two temples hewn in the rock. Then, in 1964, my rising waters behind the new High Dam at Aswan threatened to drown them. But the world came to the rescue. At a cost of $42 million (today about Rs 38 crores), the temples of Abu Simbel and their guardians were cut into 1,048 separate blocks and, after five years' labour, these sublime sandstone masterpieces were re-assembled 64 metres higher up, imperially facing the turquoise sweep of Lake Nasser.

For thousands of years my valley and the Egyptian people flourished. But in 525 BC, the Persians toppled the last native Pharaoh. They were in turn defeated by Alexander the Great and his Greek soldiers in 332 BC. The Greek Ptolemies remained for three centuries. Then Julius Caesar and Rome's legions came, saw and conquered; and for six and a half centuries my delta served as the Roman, then Byzantine Empire's breadbasket.

After the all-conquering Muslim armies swept out of Arabia into Egypt in AD 641, Egypt gradually became an Arabic-speaking, Muslim country. In 969, Al-Qahira (Cairo), "the victorious," was founded on my banks and became the capital. Here diverse Arab and Turkish invaders ruled in turbulent succession, built sumptuous mosques, palaces and Al-Azhar, the foremost theological university of the Muslim world.

In 1798, Napoleon Bonaparte, landed with a military expedition—only to be chased out after three years by a combined British-Ottoman force. In 1805, Egypt came under the control of a crafty Albanian soldier and adventurer, Mohammed Ali, who thrust Egypt into the nineteenth century. He built the first barrages across


At long last...it's time you took a serious look at something you call a banian.
VIP GOLD
To top it all, of course, it's from the house of VIP! And that's reassuring.
International ribbed design that spells class. Without a shadow of doubt.
Supersoft, superstretch fabric through Japanese technology. Virtually weightless feel ... and a perfect fit!
Never before, a special backflap to keep the vest securely tucked in. Touché.
GOLD Vests by VIP.
When you make a great vest it's worth every little fuss you make!
Avenues



This air conditioner, consumes no electricity, needs very little maintenance, is invisible and looks gorgeous.

Coir.
People are putting it to wonderful, new uses these days. And the 'air conditioner' is just one of them. Coir is an excellent thermal and acoustic insulator. That is, it keeps you cool in summer and warm in winter. Keeps noise away. Coir carpets, wall panels, false ceilings, your natural 'air conditioners'.

The comfort you can trust

Rubberised coir is as comfortable as a foam mattress and a lot healthier. It's just a bit firmer, to support your spine. And it 'breathes'. Doesn't get too warm or too cold. Bone specialists and doctors the world over, prefer rubberised coir to foam. You can use rubberised coir in your home, car and office.

20th Century Coir

For quite some time now, coir has found favour throughout the world, as an inexpensive and excellent acoustic insulator. It's also used as an air filter in air conditioners. And now, the Coir Board is experimenting with various, revolutionary new uses for coir. As a filter for oil or water. For applications in coal mines and tube wells.

The coconut tree has been one of Nature's finest gifts to man. And as he progresses into spectacular new realms of development, his old faithful keeps pace with him.

SAA/CB/3102

Coir Board
Cochin 682 016

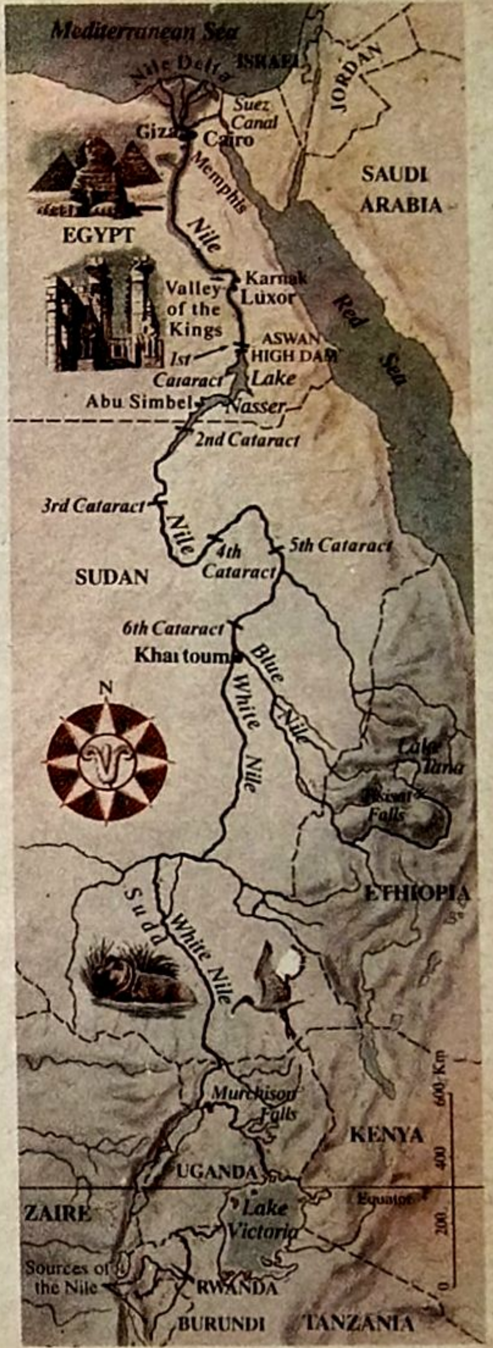
Coir — doesn't just look gorgeous, it works for you.

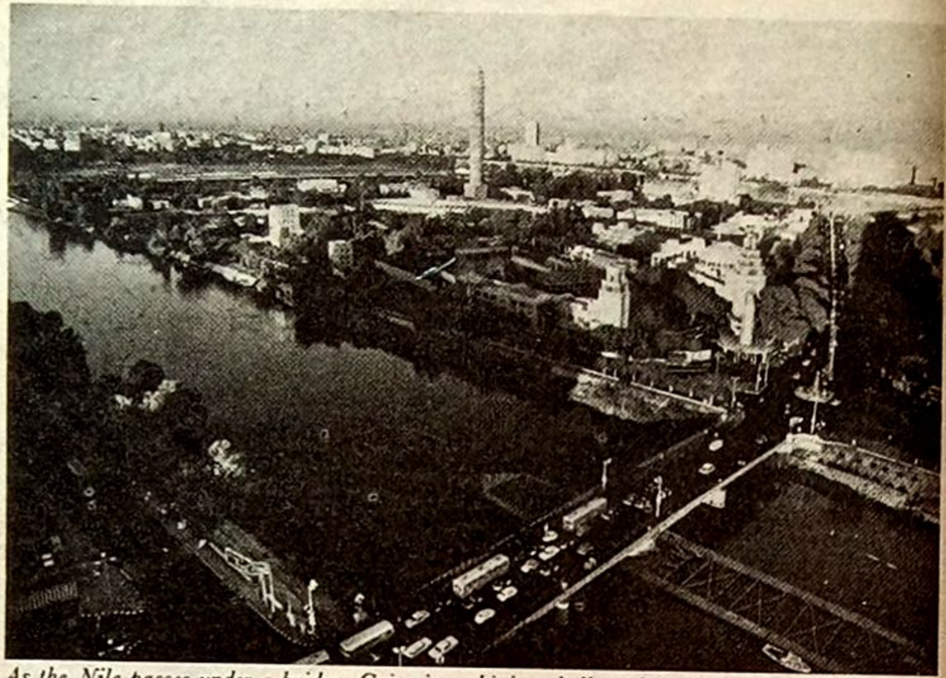
my path to divert water into newly irrigated land, and planted the cotton that became Egypt's most lucrative crop.

The Suez Canal opened in 1869, and gradually Imperial Britain brought Egypt into its sphere of influence, declaring it a protectorate in 1914. The country did not regain independence until 1936. When Colonel Gamal Abdel Nasser became Egypt's leader in 1954, he frog-marched his people through drastic land reforms, nationalized everything in sight and began to overhaul the creaking economy. The symbol of all this frantic upheaval was the colossal, Aswan High Dam that would revolutionize both industry and agriculture.

A heroic construction job, on the scale of Suez or the Pyramids, it cost a prodigious Rs 1,000 crores. By 1970, 11 kilometres south of Aswan, the High Dam lay across my waters like a great, grey concrete sloth—111 metres high, ugly yet functional.

In Full Flood. For thousands of years, usually starting in July and ending in October, I rose six metres or more, spilt over my banks and turned my entire valley into one enormous lake. Villages stood perched on earth mounds, highways crossed the waters on causeways. And when the waters receded the land was soaked and rich with silt. Now this is all over. My flow is controlled at Aswan.


Mediterranean Sea
Nile Delta
ISRAEL
JORDAN
Suez Canal
Giza
Cairo
Memphis
SAUDI ARABIA
EGYPT
Nile
Karnak
Luxor
Valley of the Kings
Red Sea
ASWAN HIGH DAM
1st Cataract
Lake Nasser
Abu Simbel
2nd Cataract
3rd Cataract
Nile
4th Cataract
5th Cataract
SUDAN
6th Cataract
Khartoum
Blue Nile
White Nile
N
Lake Tana
Falls
ETHIOPIA
Sudd
White Nile
Murchison Falls
KENYA
UGANDA
ZAIRE
Lake Victoria
Equator
Sources of the Nile
RWANDA
BURUNDI
TANZANIA
600 Km
400
200
0



As the Nile passes under a bridge, Cairo is a shining skyline of slender minarets and graceful cupolas and high-rise office buildings and tourist hotels

No more flash floods sent down by the tumultuous Blue Nile, no more famine caused by drought.

Since the dam began working, 400,000 hectares of reclaimed desert have been added to my valley. And because I can now deliver year-round water, another one million hectares have switched from one crop a year to two or even three. Food production has increased between 20 and 50 per cent.

Pioneers have moved 50 kilometres inland to tame the desert with piped water and have built seven new townships. All of Egypt's 4,000 villages have been electrified, and my dam generating 8,000 million kilowatt hours yearly, provides 70 per cent of all electricity the nation uses.

The main job of the Ministry of Irrigation's 50,000-man staff is to clean my unbelievably intricate irrigation network. Almost entirely under their own power, my waters flow from my banks into a wide parallel canal, branch off into a smaller one, multiply into canals ever smaller and smaller until they're barely ditches. Then, in his plot of beans, the *fellah* himself gently strokes the water towards each individual plant, tracing a final canal with his index finger. This is more than concern. It is love.

After so many harsh centuries things are finally going better for Egypt. The economy is picking up, annual per capita income has hit a more bearable Rs 4,000. But my green valley is still far from Utopia.

The exploding population has more than doubled since the Second World War and will reach a nightmarish 70 million within two decades. In my teeming valley over 1,000 people per square kilometre is common enough. And as a result the country, which 25 years ago exported food, now imports two-thirds of its needs.

The late President Anwar el-Sadat dreamt of a prosperous, advanced Egypt with "a piece of land and a home for every young Egyptian." I am at the heart of all such aspirations. Yet if the Egyptian people are to make wise use of my power, they must care for me more than they do now. They must fight the pollution that has begun to defile my delta with chemical wastes.

My resources are almost infinite, for I am a force in perpetual resurrection. Each day I loyally renew my gifts, sending down the never-ending flood of warm, life-giving water, serving man faithfully as I have since time began.

Carved on the pedestal of a goddess's statue from ancient Saïs, in my delta, is a haunting phrase: "I am everything—the past, the present, the future." The words could be my own.

* * *

Pigeon Post

SINCE their modern communications equipment often breaks down, the Orissa police also rely on a more traditional method of getting their messages across—courier pigeons. The police have a force of 1,000 birds called 'Homers' that link police stations and outposts throughout the state. The birds are usually released in pairs lest one be killed or hurt by hawks. They fly at speeds of 80-100 kph for up to fifteen hours at a stretch.

Once, Prime Minister Jawaharlal Nehru sent a message from Sambalpur to Cuttack via pigeon, then left immediately for Cuttack himself. Travelling by road and air, it took him six hours to complete the 292-kilometre journey—forty minutes more than the pigeon.

—Adapted from *The Indian Police Journal*

Statement about the ownership and other particulars concerning the Indian Edition of the Reader's Digest.

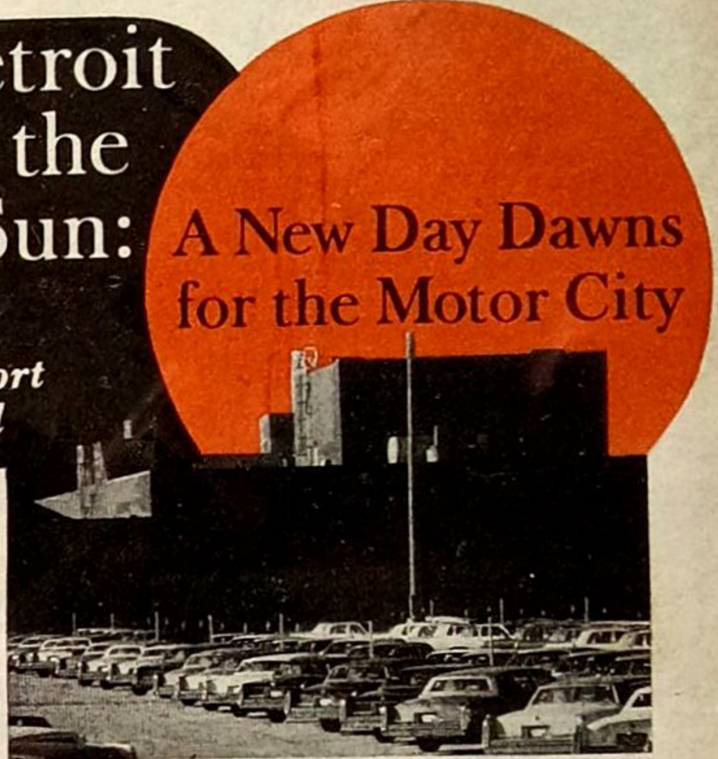
1. *Place of publication:* Orient House, Mangalore Street, Ballard Estate, Bombay 400 038; S-507, Greater Kailash II, New Delhi 110 048.
2. *Periodicity of publication:* Monthly
3. *Printer's Name, Nationality, Address:* Mr. Anil S. Goré, Indian, Orient House, Mangalore Street, Ballard Estate, Bombay 400 038.
4. *Publisher's Name, Nationality, Address:* Mr. Anil S. Goré, Indian, RDI Print and Publishing Private Limited, Orient House, Mangalore Street, Ballard Estate, Bombay 400 038.
5. *Editor's Name, Nationality, Address:* Mr. Ashok Mahadevan, Indian, 45, Vaju Kotak Marg, Ballard Estate, Bombay 400 038.
6. *Names and addresses of individuals who own the newspaper:* RDI Print and Publishing Private Limited, Orient House, Mangalore Street, Ballard Estate, Bombay 400 038.
7. *Partners or shareholders holding more than one per cent of the total capital.*
    1. Mr. Sanat Pranjivan Mehta, 114, Churchgate Reclamation, Bombay 400 020.
    2. Mr. Ganesh Narayan Joshi, Meghdoot, 162, Bhagat Lane, Off Taikalwadi Road, Mahim, Bombay 400 016.
    3. Mr. Jehangir K. S. Nicholson, Breul & Co. Taj Building, 210, Dr. D. N. Road, Bombay 400 001.
    4. Dr. Vatakke Kurupath Narayana Menon, Director's Flat, National Centre for the Performing Arts, Nariman Point, Bombay 400 021.
    5. Dr. Malcolm Sathianathan Adiseshiah, Sadhana, 21, Cenotaph Road, Teynampet, Madras 600 018.
    6. Mrs. Mrinalini Vikram Sarabhai, Chidambaram, Usmanpura, Ahmedabad 380 013.
    7. Mr. Vinayak Laxman Ukidave, 4, Sannivas, 1st Floor, Prarthana Samaj Road, Vile Parle (East) Bombay 400 057.
    8. Mr. Anil S. Goré, 6 'C' Oyster Apartments, Pilot Bunder Road, Bombay 400 005.
    9. Dr. (Mrs.) Madhuri Ratilal Shah, 51, Anupam, 11 Manav Mandir Road, Bombay 400 006.
    10. Mr. Sudhir Babubhai Shah, Breach Candy House, Bhulabhai Desai Road, Bombay 400 026.
    11. Mr. Dinesh Vyas, 45, Dariya Mahal, 80, Nepean Sea Road, Bombay 400 006.
    12. Mr. Jamshed Jehangir Bhabha, 12, Little Gibbs Road, Malabar Hill, Bombay 400 006.
    13. Mrs. Bachan N. Cama, Banoo Mansion, 'B' Block, Cumbala Hill, Bombay 400 036.

I, Anil S. Goré, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date: March, 1984 Signature of Publisher: Anil S. Goré

Detroit Faces the Rising Sun: A New Day Dawns for the Motor City

A Special Report By David Reed



Once upon a glorious time, Americans enjoyed a love affair with big, gaudy petrol guzzlers. Detroit had a lock on the huge US market. The car companies grew rich, complacent, careless—until soaring petrol prices, recession and a flood of quality Japanese imports brought the industry to its knees. Now, with a firm commitment to quality and a burgeoning spirit of co-operation between labour and management, Detroit may be on the road to a vigorous recovery.

When Robert "Red" Little, head of the local office of United Auto Workers (UAW), arrives at his union office in Michigan, each morning, he gets an exasperating reminder of the crisis that has enveloped the American car industry: a Datsun agency has opened within a very short distance of his office. As he fumes, a stream of customers, many of whom never owned anything but an American car, drive off in gleaming new Datsuns.

Little's frustration stems from the fact that the US car industry has

PHOTO: ANDREW SACKS/BLACK STAR

been devastated, not only by a four-year slump in sales but by the severe impact Japanese competition has had on what remains of the market. US sales reached a record 11 million in 1978; in 1982 they plummeted to 7.9 million. Of those vehicles, 1.8 million, or 22.6 per cent, were made in Japan.

America is the only major industrial country in the world that is virtually wide open to Japanese cars. Britain limits its imports from Japan to 11 per cent of its home market, France to 2.5 per cent, Italy to just 2,200 vehicles. The United States has a "voluntary" agreement with Japan* that puts a ceiling on imports, but it's a case of bolting the barn door after the horse is gone. The Japanese shipped 1,760,000 cars to America in 1982; precisely 3,562 American cars were sold in Japan.

For decades America was by far the world's leading car producer, but no longer. The United States has taken a back seat to Japan for three years running. The car business has taken such a battering that some observers have concluded it is a "sunset" industry, doomed to extinction. Dozens of plants, many relatively new, have already been shut down. Lay-offs of workers, which peaked at 320,000, stand at 210,000. Lay-offs in firms that supply parts and materials to car plants—650,000 at the peak—total 600,000.

In recent years, moreover, the car companies lost thousands of millions of dollars. For a time, Chrysler tottered on the brink of ruin. It was saved at the eleventh hour when the US government guaranteed loans totalling $1.2 thousand million. Ford lost more than a thousand million dollars a year for two years in a row. A controlling interest in American Motors was acquired by Renault, the French car company.

Detroit, the car industry's capital, has become a horror story of unemployment and hardship. Unemployment stands at 19.7 per cent, almost as severe as in 1933 at the bottom of the great economic depression. More than a third of Detroit's 1.2 million people are on government welfare. The UAW, the largest and most powerful industrial union in America, has lost a quarter of its members.

Red Little's local office has seen its share of misery. Two thousand members are laid off. Most, having exhausted unemployment benefits, exist precariously on welfare, the charity of relatives and friends, and infrequent odd jobs.

Little, 58, was hired as a machine operator at the Ford transmission plant in Livonia in 1952. Working in a car plant was a bruising experience then. Supervisors bullied workers continually; that was what the system demanded of them. Men would work, it was felt, only if they were driven hard. Little became active in the UAW and was soon transformed into a battle-scarred veteran of the war that raged between labour and management.

Industrial-Worker Blues

THERE were thousands of ways of doing things better, but no one cared. The car companies were awash in profits. Americans bought anything that rolled off the Detroit assembly lines—big cars, 1,800 kilos, five and a half metres long, with eight cylinders. Most got only four kilometres or so to a litre of petrol, but so what? You could fill your tank for about five dollars (Rs 25).

Styling, not quality, was the overriding consideration. The more chrome, the bigger and more outlandish the tail fins, the more the public was delighted. Most years there was no technological progress. Detroit merely gave cars a facelift and, with trumpets blaring, pushed them out of the door.

Management's only concern was to keep them going at all cost. Recalls one worker, "If you even *thought* of shutting the line down to repair something, God would punish you." Harassed by management, foremen poured the heat on the workers. Faulty parts were rarely sent back, faulty cars seldom rejected.

Union complaints about management practices and working conditions in the huge Livonia plant, which sprawled across 27 hectares, were largely ignored. In the golden years, as many as 6,500 workers were employed on three shifts. Some 2,800 machines snatched up more than 800 parts and stamped, pressed, bored and machined them into finished transmissions. The monstrous noise they made was stupefying to outsiders, but managers considered the terrible cacophony the sweetest of music.

Workers found the assembly lines dehumanizing. An assembler at Livonia said, "You go to the same spot every day. You can talk to the guy next to you, but your hands have to keep on going, making the same motions over and over, year after year. You realize that you've become a robot."

The industrial-worker blues were such that alcoholism and drug usage were always big problems in car plants. So was absenteeism, especially on Mondays and Fridays. Says a former Chrysler foreman, "You had to bring in temporary, untrained help on those days. As a result, defective cars were produced all the time." Eventually, people became wary of the Monday or Friday car.

The UAW made it almost impossible to dismiss malingerers and drove wages to giddy heights. Unskilled assembly-line workers now get about $12 (Rs 120) an hour. When other benefits are included, the total labour cost to the company is $22 (Rs 220) an hour. Thus car wages are a third higher than the average for American manufacturing workers—and Japanese car workers.

---

*The Japanese have announced that this agreement would end in March 1984.

While many employees rebelled at life in a car plant, Marvin Craig a tool-and-die maker at the Livonia plant, loved every minute of it. He had always been fascinated by mechanical devices. Now he found himself in a jungle of monster machines, and he delighted in learning how each worked.

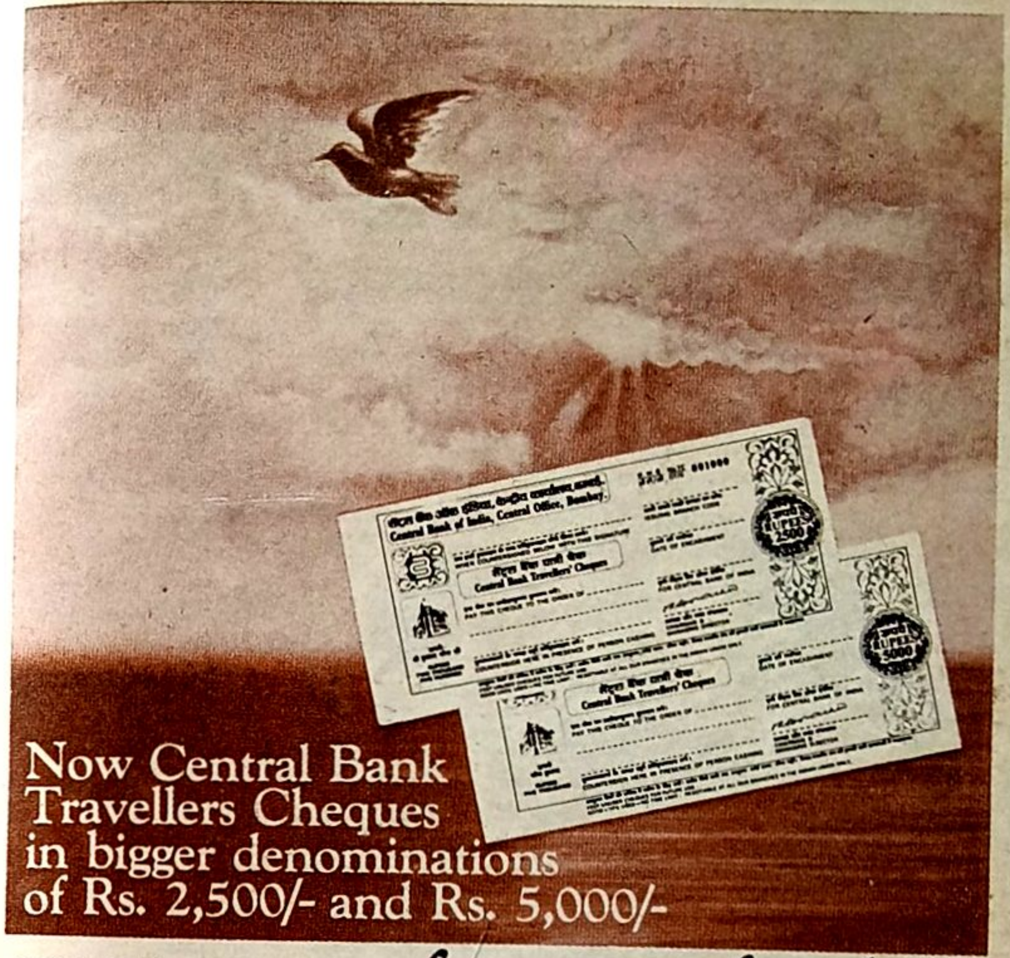
Craig's supervisors promoted him to a salaried job as a quality-control analyst. Craig roamed the plant in his new job, analysing defects and seeking remedies. He found, however, that higher-ups were not much interested in his findings. Nor were his co-workers. When he gave them ideas for improving operations, their eyes would glaze with suspicion. "What are you trying to do, eliminate jobs?" they would ask.

Rung by rung, Craig climbed to foreman, general foreman and then superintendent of production. He enrolled in night classes at Henry Ford Community College and completed a business-management training programme. In 1967 Ford bosses in Michigan transferred him to a plant in Indianapolis, where he was eventually promoted to plant manager.

The Indianapolis plant had been one of the worst-run in the Ford empire. Craig played a key role in straightening it out. His reputation soared. There was another plant that needed improving. So, one morning in August 1979, Craig walked through the front door of the transmission plant in Livonia as the new manager. He was 50 and greying. Nearly 25 years had passed since he had started there as an hourly worker.

The American car industry was then beginning to collapse. The recession had started. Car plants were closing. Craig learnt that Livonia was a terminal case in an ailing industry. It would last a few years; then grass would be growing in the car park and its work force would be out on the street. Craig hated to give up. He hated the thought of America taking a back seat to the Japanese, whose cars were now everywhere.

Craig had an idea. He talked it over with Red Little, now chairman of the UAW bargaining committee for the plant. In view of the labour-management record in Detroit, the idea seemed preposterous. Yet, in the months to come, Marvin Craig and Red Little would make history by showing the car industry how to save itself. They would do so by *borrowing something from the Japanese.*



Now Central Bank Travellers Cheques in bigger denominations of Rs. 2,500/- and Rs. 5,000/-

mean more safety, more freedom

Central Bank has introduced travellers cheques in denominations of Rs.2,500 and Rs.5,000 in addition to their smaller denominations.

This ensures that you can keep or carry large amounts without running any risk.

Central Bank's travellers cheques are encashable at all branches of all nationalised banks as well as at reputed hotels, restaurants, department stores, shops and the railways.

Convert your cash to CBI's travellers cheques and enjoy more safety and freedom.

Central Bank of India
(A Government of India Undertaking)
Build a better life around us.

Interpub/CBI/6/83

Adding up to make a world of difference...

Calculators from Keltron. Calculators that figure wherever it counts. Choose the answer to your problem from the widest range of calculators in the country. Scientific pockets, programmable printers, double-memory pockets, 14-digit printers, high-speed printers, flourescent display desk-tops, solar & musical pockets...

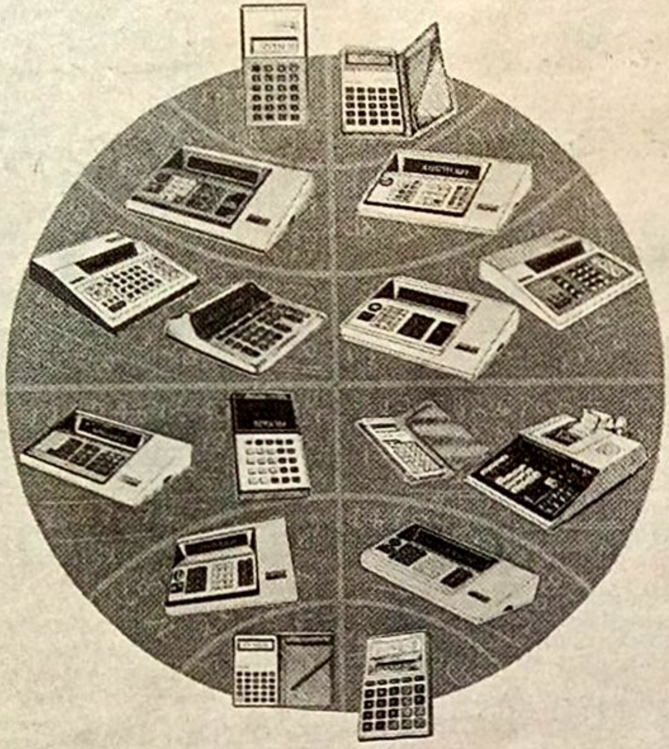
You name the calculator and Keltron has it. And each calculator in this terrific range is a sum of total reliability and economy.

Because every calculator is backed by renowned Keltron expertise and know-how, the only guarantee of unsurpassed quality you'll ever need.

What's more, an extensive service network promises you prompt and efficient service. No wonder more and more people are reaching for Keltron Calculators for all the right answers.

Keltron Calculators are available on DGS & D rate contract.

KELTRON
Know-how to serve the people.
Kerala State Electronics
Development Corporation Limited.
Consumer Electronics Division
Sasthamangalam,
Trivandrum-695 010
Phone: 63106



PDS.KE.122

KELTRON CALCULATORS

Lemons and Lines

Henry Ford put it together in a shed behind his home in Detroit, using four bicycle wheels, bits of scrap metal, and a doorbell for a horn. On June 4, 1896, he was ready to try it out, but Ford was so excited that he could not wait until dawn. So at about 3am he cranked the flywheel. The primitive petrol engine exploded into life. Ford charged out of the shed and, with that, neither America nor the world would ever be the same

Ford's first Model T's, appeared in 1908. While Ford did not invent the car (vehicles propelled by petrol engines had been introduced in the mid-1800s), his revolutionary contribution was to upgrade the primitive moving assembly line of the day into a finely tuned operation that made it possible to assemble a complete Model T in just 93 minutes. By 1913 the line was turning out over 200,000 cars a year.

No country in the world took to the car as rapidly as America did. By 1930 there were 23 million cars on US roads, one for every five people. After the Second World War the big eight-cylinder petrol guzzler became America's trademark. The car companies had the US market—the world's biggest—all to themselves, and as they grew richer they became more careless.

Japan's car industry got its start in the 1920s, but many of its factories were destroyed by US bombing raids in the Second World War. Car production resumed after the war, but quality was poor. The Japanese went to work to improve, concentrating on small cars, a necessity in a crowded country with narrow roads and high petrol prices.

The American dinosaur got its first oil shock in 1973 when, with the outbreak of war in West Asia, the Arabs imposed a boycott on the sale of crude oil to the United States. The average price of leaded regular petrol jumped from 10.4 cents to 14.1 cents per litre in 1974. Big-car sales plummeted.

But the passion for small cars was soon spent. By 1975 most Americans had gone back to their first love, big limousines. In 1978, the most profitable year in its history, General Motors achieved $63 thousand million (then Rs 472,500 crores) in sales, a sum greater than the gross national product of all but a handful of countries in the world.

The second oil shock, triggered by the flight into exile of the Shah of Iran in January 1979, was much more severe. Iran's oil production fell, and shortages developed on the world market. The Organization of Petroleum Exporting Countries jacked up prices sharply. Americans again stampeded to small cars. US car plants could not keep up with the demand.

Japan's could. Americans who switched to Japanese cars were delighted with the quality and workmanship. What started as a trickle soon turned into a flood.

One after another, the giant car plants toppled. One such was Ford's Michigan Casting Centre 30 kilometres south of Detroit. Opened in 1971 at a cost of more than $200 million (Rs 150 crores), the plant was an industrial marvel, crammed with highly advanced technology. But it was fatally cursed. It made engine blocks and other castings for large cars. It would have been prohibitively expensive to convert it to manufacture small castings. The plant closed in December 1981. Many others followed.

The party is over for American car workers. Most of the unemployed will never see the inside of a car plant again. Automation has eliminated some jobs, but the main reason is that hard times have forced the industry to get along with fewer people.

"Shut the Line Down!"

When Marvin Craig returned to take charge of the ailing transmission plant in Livonia, he walked through it on an inspection tour.

In fact, Livonia had two problems, either one of which could be fatal. The plant had been so badly run that there was a strong chance Ford would simply cut its losses by closing it. The other problem was that Livonia was making automatic overdrive (AOD) transmissions. The AOD was a technical gem, one of the most fuel-efficient transmissions ever developed. But it was intended for cars with rear-wheel drive at a time when the industry was "downsizing" and switching to cars with front-wheel drive.

Craig saw a way out. A front-wheel overdrive transmission called the AXOD had just been developed for medium-sized cars. Livonia could bid for the contract to build it. (By custom, Ford plants compete with outside firms for big contracts of this sort.) Craig knew that he would have to compete with the Japanese, in particular with Toyo Kogyo, the firm in Hiroshima that produces Mazda cars and in which Ford owns a 25 per cent interest.

Craig had a series of meetings with Red Little. Little agreed that the only hope his members had of winning the contract lay in improving quality and cutting costs sharply. They would have to break away from the traditional antagonism between management and labour and work efficiently together as a team. He decided to deliver a message to the 5,000 employees.

The workers were summoned in groups of several hundred. "You're going to hear things you're not going to like," Craig

Continued on page 217

The Growing World of BEL

Bharat Electronics Limited is India's premier professional electronics company. A pioneer that has made significant contributions to the rapid development of the electronics industry in India.

Over the past three decades, BEL has remained the leader in its field, developing and producing state-of-the-art equipment, components and systems. Its in-depth expertise in radio communication, radar, broadcasting and other areas of professional electronics is unparalleled. BEL is recognised as a fountainhead of technology in the country.

A majority of the equipment now manufactured at BEL is designed in-house. And its expertise and competence in the development and production of sophisticated electronics is universally recognised. Internationally reputed firms now seek out BEL for joint development ventures.

With 18,000 highly competent personnel, BEL has recorded a turnover of around Rs. 1500 million which is expected to cross Rs. 2000 million in the next two years.

The world of BEL continues to grow. Its team of trained and qualified engineers continue to experiment and innovate, discovering new directions, exploring new technologies, probing into the future in the same pioneering spirit that has made BEL the leader in professional electronics today.

BHARAT ELECTRONICS LTD
(A Government of India Enterprise)

BEL—leaders in professional electronics.

HTK-BEL-1565

The growing world of BEL

Exploring tomorrow's electron tubes...

...and meeting the needs of today

With advanced manufacturing techniques and testing equipment, BEL has achieved higher performance standards in electron tubes. With modern facilities for vacuum casting, spark erosion and ceramic metal brazing, BEL will soon introduce super power electron tubes for specialised industrial applications and high power broadcast and communication transmitters.

The country can now look forward to a new wide range of electron tubes for several critical applications. For example, high power 1000 milliamp X-ray tubes for high resolution X-ray sensing, in addition to the current range, with a maximum capacity of 500 milliamps.

For high power applications, BEL has designed air cooled, water cooled and vapour cooled triodes and tetrodes.

Among the breakthroughs are the high frequency ceramic envelope power tubes for television transmitters, FM transmission and VHF communication equipment. High power microwave tubes and UHF planar triodes for strategic defence applications. And a new generation of vacuum switching devices such as, vacuum contactors for industrial power controls, vacuum interruptors for the switchgear industry. These will introduce high levels of technology in circuit interruptors and replace conventional airblast and oil circuit breakers.

BEL — a fast-modernising electronics base

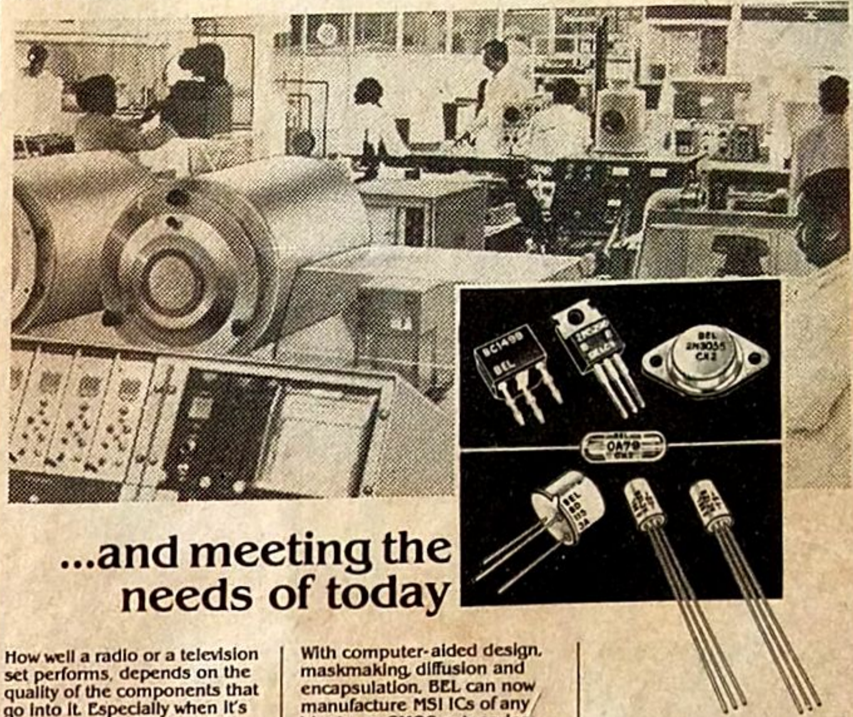
In answer to the increasing demands of the electronics industry, BEL is constantly expanding its capabilities. And adding to its growing world of ICs, crystals, display devices, germanium and silicon semiconductors, hybrid microcircuits and ceramic capacitors. That's the components side of the story. BEL is the country's leading manufacturer of professional electronic equipments and systems as well. Innovating and specialising in electronics for communications, radar and broadcasting. For defence and civil applications.

BEL — where state-of-the-art electronics is poised for the future.

HTK-BEL-1396-1

The growing world of BEL

Discovering newer directions in semiconductor devices...



...and meeting the needs of today

How well a radio or a television set performs, depends on the quality of the components that go into it. Especially when it's something as critical as the semiconductor.

The semiconductor is as vital to an electronic circuit as the heart is to the circulation system. It is one of the most crucial components in all electronic circuits — from TV receivers to radar systems.

BEL is part of this too...

Equipped with sophisticated design, manufacturing and testing facilities, BEL is moving into newer directions in semiconductor devices.

BEL has made heavy investments in systems and equipments to heighten its capabilities in semiconductors.

With computer-aided design, maskmaking, diffusion and encapsulation, BEL can now manufacture MSI ICs of any bipolar or CMOS categories. In a larger scale of vertical integration.

The country can now look forward to a new generation of silicon small signal and power devices. And with new equipment to extend the scope of CMOS technology, BEL has gone into ion implantation, doping and poly-silicon deposition.

BEL — a fast-modernising electronics base

In answer to the increasing demands of the electronics industry, BEL is constantly expanding its capabilities. And adding to its growing world of transmitting tubes, X-ray tubes, microwave tubes, passive vacuum devices, display devices, hybrid microcircuits, crystals, ICs and ceramic capacitors. That's the components side of the story. BEL is the country's leading manufacturer of professional electronic equipments and systems as well. Innovating and specialising in electronics for communication, radar and broadcasting. For defence and civil applications.

BEL. Where state-of-the-art electronics is poised for the future.

HTK-BEL-1396-2

The growing world of BEL

Innovating hybrid technologies for microcircuits...

...and meeting the needs of today

In electronics, when performance levels are measured to very fine accuracies, a lot more is expected of testing instruments than performing to zero error efficiencies. And that entirely depends on the degree of perfection in the components that go into them.

One such component is the hybrid microcircuit — the wonder package that's integral in any electronic system.

BEL is part of this too...

Equipped with the latest manufacturing and testing facilities, BEL is innovating newer hybrid technologies. Especially in the integration of thick and thin film microcircuits. With unique facilities for interfacing several functions of sub-systems, BEL can handle prototype as well as batch production.

The country can now look forward to new introductions in thick and thin film technology — designs, custom-built for specific applications.

BEL — a fast-modernising electronics base

In answer to the increasing demands of the electronics industry, BEL is constantly expanding its capabilities. And adding to its growing world of transmitting tubes, X-ray tubes, microwave tubes, passive vacuum devices, display devices, germanium and silicon semiconductors, crystals, ICs and ceramic capacitors. That's the components side of the story. BEL is the country's leading manufacturer of professional electronic equipments and systems as well. Innovating and specialising in electronics for communications, radar and broadcasting. For defence and civil applications.

BEL. Where state-of-the-art electronics is poised for the future.

HTK-BEL-1396-3

told them, "but they're true. We produce a rear-wheel-drive transmission here, and the industry is switching to front-wheel. Maybe we have a few years left. This plant could have a future, but I can't make it without you. We've got to stop arguing about whose job it is to get the job done, and *get* the job done. Those boys across the Pacific are beating you in quality and they're beating you in cost. Either we work as a team and do the job or it will be a case of the last guy out, please turn out the lights."

The employees stood up and applauded.

Getting Into Gear

A GROWING number of car industry executives began visiting car plants in Japan. Craig made the trek on two occasions, subjecting Japanese car plants, including Toyo Kogyo's at Hiroshima, to his expert scrutiny.

Japanese car makers, Craig knew, could build small cars and ship them to the United States for much less than it costs companies to manufacture them in America. The fact that US car workers' wages are a third higher than those of the Japanese is part of the problem. Japanese manufacturers also enjoy advantages stemming from the tax policies of the two countries and from the rate of exchange between the dollar and the yen.

Even more important than these reasons, in the opinion of Craig and others, is the fact that Japanese plants are operated much more efficiently. James Harbour, a car industry analyst, calculates that the Japanese can produce a small car with 115 man-hours of work, compared with 195 in the United States. Harbour says the Japanese advantage does not result from superior technology; indeed, some US plants are more sophisticated than their Japanese counterparts.

What, then, is the secret of their success? The answer, many experts feel, lies in superb management techniques and teamwork between labour and management. Japanese managers supervise every last detail of the production process, continually striving for perfection. The Japanese, moreover, employ a system called *kanban,* meaning "just in time," in which suppliers deliver parts to factories as needed. Without a big inventory of parts to tide the factory over, it is imperative that work be done like clockwork if the line is to keep moving.

Japanese car workers approach their jobs with an eagerness unknown in Detroit. Workers at many plants show up before starting time, do calisthenics in front of their machines and then, at eight sharp, begin their tasks.

While American workers had always been told that they weren't paid to think, it has been the other way around in Japan. Says Soichiro Honda, a one-time mechanic who went on to found the company that bears his name, "An industry prospers only when everybody involved in it thinks about how it can be improved." At Toyota, the giant of the Japanese car industry, 1.4 million employee suggestions—30.5 per worker—were submitted in 1981. Ninety-four per cent were accepted.

Having started at the bottom, Craig understood workers and sympathized with their concerns. He annoyed some of his colleagues by blaming management for much of the inefficiency in the plants. "There is a wealth of knowledge out there on the line," he said. "Who knows a job better than the man who does it every day? We've got to tap that knowledge to compete successfully."

A national labour contract signed by the UAW and Ford offered Craig an opening to the workers' experience and ingenuity. The contract contained a revolutionary provision under which the union and company would embark on a joint programme of "employee involvement." Management would involve hourly workers in the decision-making process and would make working conditions as pleasant as possible. The union, in turn, would join in efforts to raise productivity by cutting costs and promoting efficiency.

There was a lot of opposition to the programme on both sides of the fence. Many in management preferred giving orders to discussing problems with workers. Many union officials objected in principle to the idea of co-operating with the "enemy."

The programme got off to a flying start at Livonia however. Eighty employee-involvement committees were formed, with more than 700 members. Once a week, committee chairmen met with management and told them what was wrong in their particular department. The next week, management reported back on what had been corrected.

As in Japan, initiative was rewarded. In 1982 Ford paid Livonia employees $600,000 (Rs 60 lakhs) in cash and new cars for ideas that saved the company $3.7 million (Rs 3.7 crores). The employee-involvement programme also generated a remarkable increase in quality.

Employee involvement helped to lessen the traditional problem of the assembly line—boredom and consequent absenteeism. Workers felt for the first time that they were valued members of a team, not robots. Absenteeism, 6 per cent of the work force at any one time in 1979, has fallen to 3.8 per cent. While management and labour had once spent weeks haggling at the bargaining table over such questions as water coolers and fans, those matters were now quickly resolved through committee channels.

The biggest step of all taken by Craig and Little towards winning the AXOD contract was to negotiate a series of cost-saving changes in work rules as laid down in agreement between the company and the local union.

Red Little risked his job as a union leader in agreeing to work-rule changes.

He took a lot of flak, but he was a popular, persuasive leader, and when the members of the local office voted on whether to accept the changes, 91 per cent said yes. When Craig and Little took the revised work rules to company headquarters, financial experts reckoned that the changes would trim costs by 25 per cent.

A second factor in winning the AXOD contract would be the cost of new machinery. Normally a plant would re-tool from scratch if it switched to a new product. Craig and Little worked out ways to upgrade some of the existing machinery thus reducing the total investment.

On November 12, 1981, Craig got a telephone call from the office of John Betti, Ford's vice-president for power-train and chassis operations. "Mr Betti wants to hold a press conference in your plant this morning," Craig was told.

NEXT MONTH

The Child Who Came Out of the Box
This young war casualty had been left to die. Who could save her?

A Rape Victim's Story
An account of what rape truly means to its victim

Opal Fever!
In the remote Australian outback everyone dreams of striking opal

Everybody Loves Lucy!
Lucille Ball is not Lucille Ball. She is simply, perfectly ... Lucy

BOOK SECTION
Massacre At Amritsar
A reconstruction of the complex situation that climaxed in the 'monstrous event' in the Holy city of the Sikhs

In Reader's Digest For April

Betti appeared before television cameras and announced that the Livonia plant had successfully *underbid* Toyo Kogyo. Everyone applauded.

Within minutes, the news had swept through the plant.

"We took on the giant," Craig announced. "When we really get together, there's nobody we can't beat."

Down the Road

LIVONIA had made industry history. It was the first occasion of any consequence when an American car plant had beaten the Japanese at their own game—efficiency.

Things are looking up for hard-pressed Chrysler too. The company reported a net profit in 1982, the first time it was out of the red since 1977, and business continued to improve in the first six months of 1983.

Chrysler's comeback resulted from cutting costs to the bare bone while at the same time raising productivity. Of 60 plants, 20 were closed or sold. The number of employees was reduced from 157,000 in 1978 to 74,000 today. Executive salaries were slashed. The UAW agreed to a wage freeze and gave up cost-of-living increases and some paid holidays. In earlier years, Chrysler had to produce 2.4 million cars to break even; now it earns profits once it has turned out just 1.1 million.

With America climbing out of the recession, sales of US-made cars were up 13.4 per cent for the first six months of 1983 compared with the same period of 1982.

Larger cars with higher profit margins, especially when loaded with expensive extras, appear to be making a comeback. Even though 1982 was the industry's worst year in more than two decades, sales of large cars actually rose in comparison with 1981.

The cars of the future are already taking shape in the car companies' technical centres. Even the biggest 1985 models will be smaller than their 1983 counterparts, but since almost all will have front-wheel drive, with engines mounted sideways, they will have as much interior room as the 1983s. Plastic reinforced with fibreglass will be used in ever greater amounts.

"It's the most exciting time ever in the car industry," says John Latini, a Ford plant manager. "New ideas are constantly being developed. There's co-operation between labour and management for the first time. We still have our differences, but we can talk about them now."

Latini pauses to bestow an affectionate pat on a passing Escort. "Hell," he exclaims, "I tell the Japanese, 'You've awakened a sleeping dog. And now he's going to bite you!'"

HOLIDAY AND TRAVEL

Reader's Digest

Special Advertising Feature

MARCH 1984

WHITHER FOREIGN TOURISM

BY SHAKUNTHALA JAGANNATHAN

Foreign tourist growth in India is nowhere as bad as it is believed to be nor anywhere near as good as it should be.

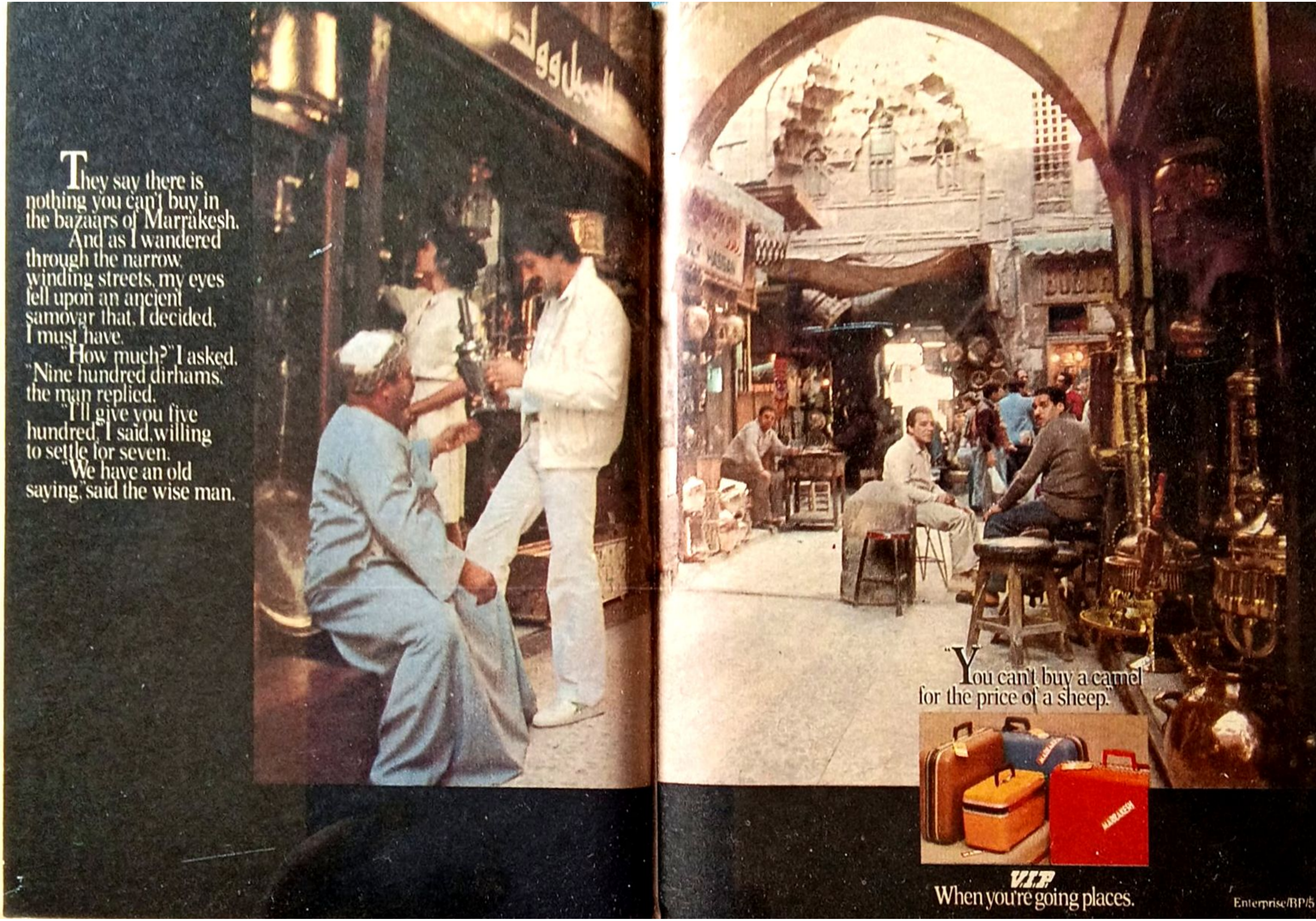
An optimistic view can be taken from the growth rate. Well over 1¼ million tourists visited India in 1982 as against only 17,000 in 1951 and 80,544 in 1957. Also, for the first time, tourism topped the list as foreign exchange earner in the country. Whereas the world growth rate was 8.7 per cent between the years 1969 and 1973, it was 16.8 per cent for the same years in India. We therefore have been moving in the right direction.

Unfortunately world recession has affected foreign tourist growth to India these past few years, but hopefully the bad days appear to be over. Tourist arrivals have started on an upward trend once again from September/October 1983.

However, a complacent view cannot be taken. Our tourist attractions warrant far more tourists than we are getting. No other country can match India as a tourist draw. If a tourist wants mountaineering and trekking, which mountains in the world can compete with the Himalayas? If he wants the sea and the sun, where else would he find thousands of miles of virgin beaches, against back drops of swaying coconut palms? If he wants to visit ancient sites or ruins, which country can match the monuments of the Hindu, Buddhist, Jain, Muslim, Sikh and Christian faiths? Or if he is in search of secluded spots, away from civilisation, the Lakshadweep Islands with their sparkling clear waters or the Andamans with their thick rain forests, white sands and coral reefs have few parallels. If he wishes to study Yoga or meet men of religion, then our Gurus and Sanyasis and their Ashrams have much to offer. Whatever his interest, India has unparalleled attractions to offer the tourist.

Unfortunately, there is a high concentra-

Continued on page 224



They say there is nothing you can't buy in the bazaars of Marrakesh.

And as I wandered through the narrow, winding streets, my eyes fell upon an ancient samovar that, I decided, I must have.

"How much?" I asked.

"Nine hundred dirhams," the man replied.

"I'll give you five hundred," I said, willing to settle for seven.

"We have an old saying," said the wise man.

"You can't buy a camel for the price of a sheep."

V.I.P.

When you're going places.

Enterprise/BP/5

(Contd. from page 221)

tion of travel between the economically advanced nations. Fifteen nations receive nearly 90 per cent of the world's tourists. The rest of the world has to compete for the remaining 10 per cent. Hence the high-pressure marketing of many such countries.

One of our greatest handicaps has been that in the past, we aimed our marketing mainly at the affluent countries of the Americas, Europe, Australia and Japan, all of which are very far from India. So the main component of a travel package becomes the high airfare. There are several excursion fares today, but travel from most of these countries continues to be expensive. More promotional fares are needed.

The promotion of tourism from the nearby countries of South-East Asia, with whom we have strong cultural ties is vital. Such promotion could be in the cultural field too. What could be more exciting than an annual Ramayana festival in our major cities with scenes presented by Thai and Indonesian troupes in addition to our own?

The growth of tourism from the Middle East in recent years is an encouraging feature but if the Arab tourist is fleeced at the airports, at the hospitals and everywhere else, we will kill the goose that lays the golden egg. Before we know it, the Arab will find fresh destinations. It is believed that they are already moving to South-East Asia.

Another big group that has been neglected is the ethnic tourist, descendants of Indians who migrated one, two or several generations ago. These tourists come once in their lifetime to India and travel from one end of the country to the other.

The American traveller welcomed with open arms in Europe is the ethnic tourist of Europe whose ancestors migrated to America several generations ago. Yet we tend to treat our ethnic tourist indifferently believing that he is, after all, an Indian who would visit India anyhow. But he is not an Indian. He is a foreigner with cultural and emotional ties to the land of his ancestors. So he must be welcomed, and given all the privileges of a foreign tourist.

Tourists who stay in 5-star and deluxe hotels in our country are usually happy. But those who opt for 2, 3 and 4-star hotels often complain about the high tariffs of the hotels in relation to their poor facilities. We must, therefore, see that we do not price ourselves out of the market. State Governments must set aside and lease land for medium and low-priced hotels in cities. There is a great need for 2 to 3-star hotels with a high level of cleanliness all over India. Today such hotels exist only in the South.

Transport problems such as getting plane and train reservations also impede the growth of foreign tourism. A disgruntled tourist spreads the word around and discourages others from travelling to India. There is a tendency for everyone to treat tourism as a subject to be dealt with by Government. But Tourism is everybody's business.

It is the business of the Health, Immigration and Customs officials at the airports to see that the tourist is not harassed. It is the business of the taxi-driver and the shopkeeper to make the tourist feel satisfied that he has not been cheated. It is the business of the tourist guide to present a proper image of India's problems and achievements, and of her rich cultural heritage. It is the business of the airline and railway clerk to serve the tourist promptly and courteously without demanding bribes.

The slogan, "Welcome the visitor, Send him back a friend," may seem a time-worn cliché, but it is not. India is one of the few countries which still offers service of a high quality. Let us keep it that way. Let not cupidity and greed overtake the wonderful hospitality for which India is known all over the world.

*

alfredallanSGH18.1

The Siddharth Style
ROYAL. MAGNIFICENT.

SIDDHARTH GROUP OF HOTELS
Hotel Siddharth, Rajendra Place, New Delhi. Ph:5712501 Telex:031-5031 SIDH IN
Hotel Siddharth Continental, Vasant Vihar, New Delhi. Ph:678800 Telex:031-5533 SICO IN
KLM Golden Tulip World Wide Hotels b.v.

ALLWYN WATCHES
WYN
ALLWYN WATCHES
RST

Suddenly, it's the ta k of the town!

ALLWYN
WATCHES
Manufactured under licence from
SEIKO
Handwound • Automatic • Quartz

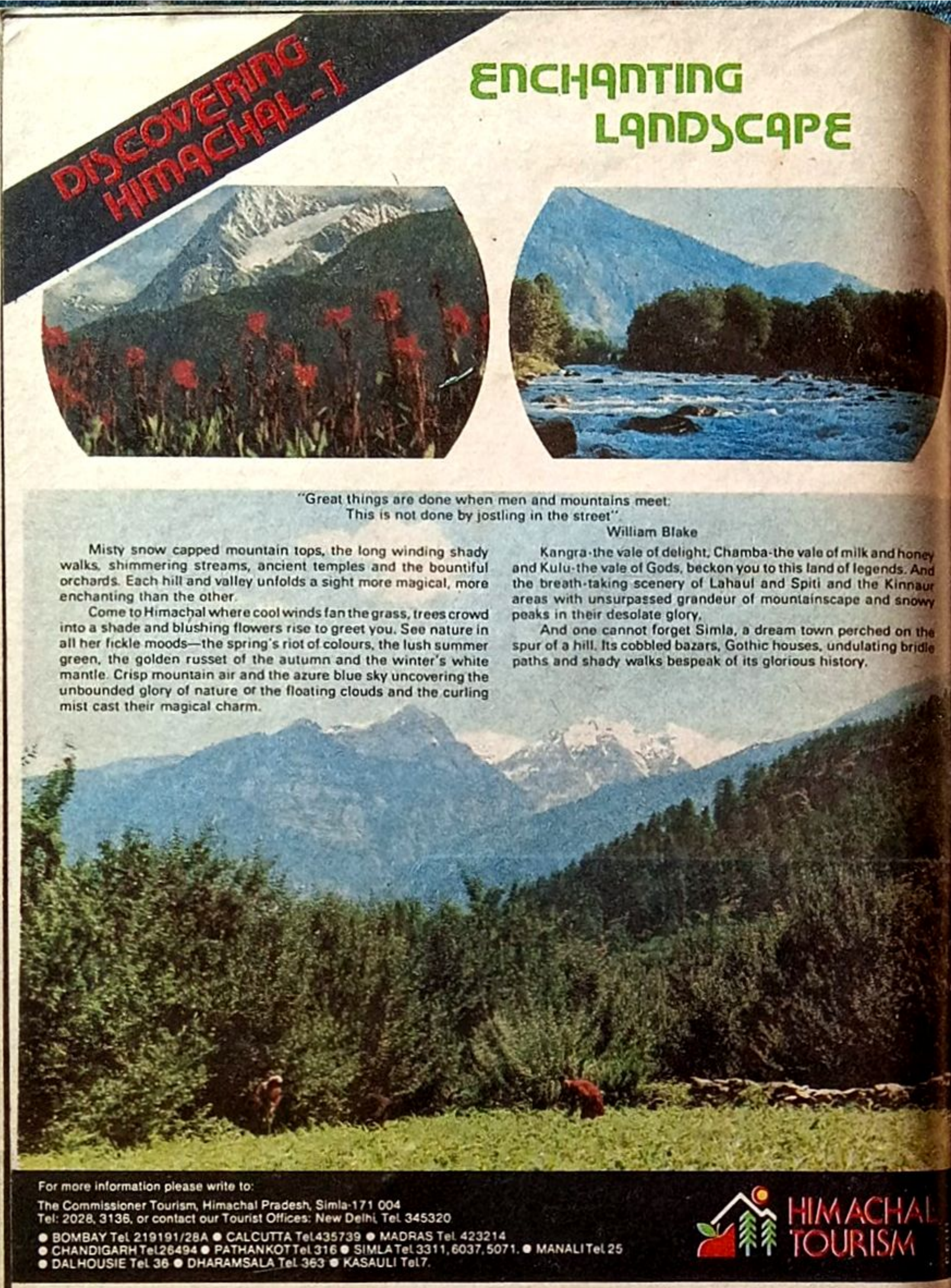
Allwyn watches. Sheer beauties. Taking town after town by storm. With their wide, winning range. And superb accuracy.

Care-crafted in collaboration with the world leaders in watch technology.

Allwyn: the talk of the town.

Have a winning time with
ALLWYN

SAA HAL 1378



DISCOVERING HIMACHAL - I

ENCHANTING LANDSCAPE

"Great things are done when men and mountains meet:
This is not done by jostling in the street".
William Blake

Misty snow capped mountain tops, the long winding shady walks, shimmering streams, ancient temples and the bountiful orchards. Each hill and valley unfolds a sight more magical, more enchanting than the other.

Come to Himachal where cool winds fan the grass, trees crowd into a shade and blushing flowers rise to greet you. See nature in all her fickle moods—the spring's riot of colours, the lush summer green, the golden russet of the autumn and the winter's white mantle. Crisp mountain air and the azure blue sky uncovering the unbounded glory of nature or the floating clouds and the curling mist cast their magical charm.

Kangra-the vale of delight, Chamba-the vale of milk and honey and Kulu-the vale of Gods, beckon you to this land of legends. And the breath-taking scenery of Lahaul and Spiti and the Kinnaur areas with unsurpassed grandeur of mountainscape and snowy peaks in their desolate glory.

And one cannot forget Simla, a dream town perched on the spur of a hill. Its cobbled bazars, Gothic houses, undulating bridle paths and shady walks bespeak of its glorious history.

For more information please write to:

The Commissioner Tourism, Himachal Pradesh, Simla-171 004
Tel: 2028, 3136, or contact our Tourist Offices: New Delhi, Tel. 345320

● BOMBAY Tel. 219191/28A ● CALCUTTA Tel.435739 ● MADRAS Tel. 423214
● CHANDIGARH Tel.26494 ● PATHANKOT Tel.316 ● SIMLA Tel.3311, 6037, 5071. ● MANALI Tel.25
● DALHOUSIE Tel. 36 ● DHARAMSALA Tel. 363 ● KASAULI Tel.7.

HIMACHAL TOURISM

ADVERTISING FEATURE

PROMOTING TOURISM

BY SUDHA SETHU

Aboard flight EA 848, bound for New York from Tampa, Helen Carr heaved a sigh of relief as she fastened her seat belt. With both John and she having had to work till the very last minute, they had scarcely had time to breathe. Now, they were finally off to India, to fulfil a long-cherished dream. By 6.45 p.m. they were at John F. Kennedy Airport. As they boarded the Air India flight, excitement soared.

Half a world away, at Bombay, Mr Dixit and family, bleary-eyed at 6 a.m., left by the Gitanjali Express train for Calcutta. Allowing himself the luxury of his Leave Travel Assistance from ONGC, he had booked tickets in the air-conditioned sleeper Coach — all for the pleasure of discovering Calcutta.

Tourism is a global happening, an expression of man's natural instincts to move from one place to another. In the olden days travel was fraught with trials and tribulations. Hence, perhaps, the origins of the word 'Tourism': from "travail" or trouble in French and from "tripalium" (Latin) meaning a wooden instrument of torture.

Tourism as an Industry

According to Reserve Bank estimates, net earnings from tourism in 1982-83 amounted to Rs.1,066 crores. (gross earnings amounted to Rs.1,200 crores). This makes tourism the largest foreign exchange earner in India — earnings that came from other tourists like John & Helen Carr. In 1982 alone, India had 8,80,000 foreign visitors. Targeted growth for 1985 projects arrivals at 17 lakhs! The tourism industry in India generates employment for over 44 lakh people.

As an industry, it is clear, rates of growth are high in terms of arrivals. Yet, a WTO (World Travel Organisation) study reveals that the South Asian region (including India, Pakistan, Sri Lanka, Bangladesh and Nepal) has the lowest share, less than 1 per cent of the total volume of world tourism.

On the domestic (tourism) front, the average rate of growth of domestic tourism is about the same in terms of "arrivals" as in the case of foreign tourists. However, the Indian tourist only spends about half as much as an international tourist! Interestingly, there are 9 domestic tourists for every foreign tourist. Definition-wise, a domestic tourist excludes pilgrims, and includes those who spend leisure hours away from home, using "accepted" tourist services.

Tourism — The Infrastructural Network

The long flight had exhausted the Carrs; besides, it was past midnight (local time) when the flight landed. Now all they could think of was a warm bath and bed. At the airport, they were subjected to a long and tortorous wait; through health, immigration, baggage (that took 45 minutes to arrive), and customs, they finally emerged. Helen's re-set watch showed 1.45 a.m. Fortunately, their flight to Jaipur was only at 17.35 that day. After minor altercations with the porter and a cab-driver, they sped towards Oberoi Inter-continental.

These are but a few of the irritants that a foreign tourist contends with. Tourism development necessarily calls for adequate infrastructure in terms of facilities for a tourist. It is imperative to make it easy for the tourist to visit so that foreign exchange can flow in Hotels, Road/Rail/Air transport facilities, shopping facilities — these are things a tourist expects.

To aid the tourist in his endeavour, Indian Airlines has launched the "Discover India" scheme for foreign tourists. The scheme allows unlimited travel in India for 21 days at a cost of $375 only.

Bodies That Help

A number of organisations have been

Continued on page 233

The many splendoured land

The majestic mountains in the north with picturesque hill-resorts—Darjeeling, Kalimpong, Kurseong and Mirik—offering magnificent view of Kanchenjengha and some other mightiest peaks of the world including the Everest.

Dooars, in the foothills of the Himalayas, the Land of virgin forests, verdant tea gardens and the vying vivaria—the principal of them at Jaldapara, the home of rare one-horn Indian rhino.

The expanse of the sea and a wide golden beach at Digha girdled with casuarina groves.

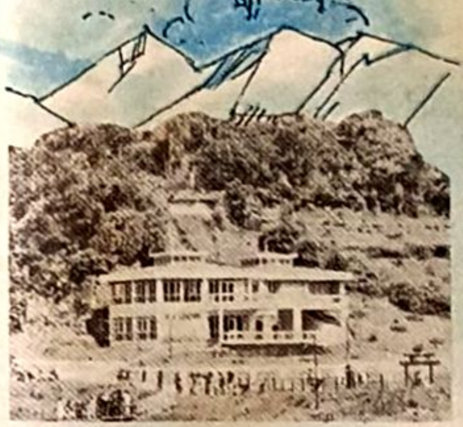
Santiniketan—the abode of peace—conceived and created by Rabindranath Tagore.

Sunderbans—where numerous creeks and channels criss-cross the dense forest, the abode of the Royal Bengal Tiger.

Embroidered by the silver of scores of rivers and rivulets—Teesta, Jaldhaka, Mahananda, Bhagirathi, Mayurakshi, Kanshabati, Damodar and the Ganga, the land is enwrought with ornamentations of exquisite terracotta temples (Vishnupur) and magnificent architectural monuments (Gour, Pandua, Murshidabad).

Calcutta, the cosmorama. You may miss here some of the best of physical amenities you get elsewhere but you can never miss the beat of life with which the city throbs. Calcutta captivates and before you realize that, you have become a Calcuttan Birth-place of India's cultural renaissance, it continues to lead India in matters of mind. Its heritage of dance-dramas and experimental theatre lives on. Readings of poetry draw full houses. Some of the best of the films are always in the making in the studios of Tollygunge.

West Bengal



"Thirteen festivals in twelve months" is the proverb for Bengal. In fact, the number is many more. Durga Puja is the biggest of them. For four days, for everyone it is only songs and dances, light and colour, love and greetings. Kalipuja or Diwali, Saraswati Puja, Dol Utsav and Ratha Yatra are a few other important festivals.

Quintessence of Bengaliana—Hospitality

Tourist lodges at—Darjeeling, Tiger Hill, Kalimpong, Kurseong, Mirik, Siliguri, Malbazar, Madarihat (Jaldapara) Raigunge, Malda, Behrampur, Bakreswar, Santiniketan, Durgapur, Vishnupur, Digha, Kankrajhore, Diamond Harbour, Bakkhali and Barrackpore.

For booking and information, contact:—

Tourist Bureau

3/2, B. B. D. Bag East
Calcutta 700 001 Phone 238271
Gram-TRAVELTIPS

Tourist Bureau

1 Nehru Road Darjeeling
Phone 2050

Tourist Office

Hill Cart Road Siliguri
Phone 21632

Tourist information Council
A/2, State Emporia Buildings
Baba Kharak Singh Marg
New Delhi 110 001

Once here, you belong to us "FOREVER"

Government of West Bengal

To Colombo and on to the Far East...with a taste of Paradise all the way.

Fly with us on one of our convenient connecting flights from Bombay, Madras, Trivandrum or Tiruchirapalli to Sri Lanka. From Colombo, we can fly you in superb Tristar comfort to the major cities of the Far East. To Singapore any Mon, Thur or Sat. To Bangkok any Mon, Tue or Sat. And to Hongkong any Mon or Sat. Wherever and whenever you fly with us you'll experience service with a gentle warmth that can belong only to those who live in Paradise.

AIRLANKA
A taste of Paradise

Call your Travel Agent or Air Lanka Bombay Tel: 223299, 223599, 223288; Madras Tel: 86315, 87432, 811537; Tiruchirapalli Tel: 27952; Trivandrum Tel: 63267, 66575.

GKL/BBDO/AL 17 (R)

(Contd. from page 229)

founded to foster healthy growth of tourism. TAAI (Travel Agents Association of India) is not only stepping up campaigns for tourism promotion in India but is questioning the new visa procedure and withdrawal of the 30-day landing permit facility for foreign tourists in India. 10 per cent of traffic is lost because of the re-imposition of visa, they estimate. And this 10 per cent amounts to Rs.100 crores in real terms!

The Pacific Area Travel Association (PATA) established in 1951, serves to bring together tourism-related organisation in every country in the Pacific region the PATA (India) chapter has 132 members. This organisation set up "Tourism Research and Awareness Programme" (TRAP) in India to improve tourism image in India. PATA (India) conducted a South Asia Communicators Conference in October 1983, a result of the steady improvement in communications during the last 30 years. This conference helped open newer and better avenues of marketing for tourism.

IATA, International Air Transport Association, brings together airlines of all sizes, and in varying stages of development. Recently, Indian Airlines emerged as the tenth largest domestic carrier in the world according to World Air Transport statistics. This also made Indian Airlines the third largest airline among all IATA member airlines in Asia and West Asia.

The Changing Profile of Tourist Backgrounds

Helen Carr works in the Library at the University of South Florida, Tampa, while her husband John is employed with Anheuser Busch on a special project at Bush Gardens. A typical American two-member earning family, the Carrs do not exactly belong in the upper echelons, yet they believe in the leisure ethic.

A Gallup organisation survey revealed that of a global sample of 9000 from 58 countries, 68 per cent in the U.S., 84 per cent in France, 79 per cent in Canada, 32 per cent in Far East, and 17 per cent in India said they would like to travel abroad. Yes, the desire to travel is fairly universal!

Tourism's "Chip"-ing in

The Carrs called their travel agent as soon as they knew their tentative leave schedule. And, thanks to that marvel, the Computer, a number of alternative route plans were almost immediately made available. For many travel agents it is now very easy to access information about flight schedules, rates and other such details. All Helen and John had to do was approve of a particular itinerary drawn up — and their bookings were through, right to India.

While this is one aspect of the scientific world's influence on tourism, there are yet others. Mass communications, with newer and better broadcast facilities may serve to satiate the travel needs of many, bringing the world so close, that the travel-urges of many (or the travel bug) may be completely erased. Conversely, with the development of teletext (1-way communication) and video-text (2-way communication), information access, both for the consumer and for the travel agent may become so easy as to facilitate marketing of tourism into hitherto unexplored territories. Satellite communication and cable television are other developments that are fast-expanding the tentacles of information reach. Cable television would prove especially useful to "narrowcast" to segments, in terms of marketing tourism.

Targeted Tourists?

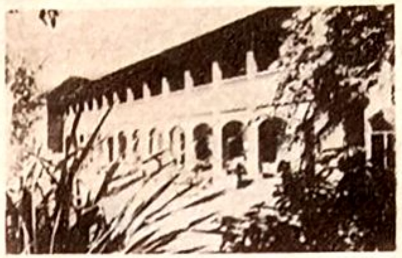
The information systems now being available should pave the way for better communication to specific targets. Specific information is required by various targets. Often it has been said that the problem with Asia is that foreigners cannot identify with the countries they visit; they don't belong, they cannot participate, they feel alien. It becomes apparent then that it is not important to sell just the monuments and structures, the cheap tours and fares. They look for an education, an education that can evoke a desire to see the country and understand its diverse culture.

Only Rs.20 million is spent on promoting

Continued on page 239

SUBLIME MOMENTS

...that dreams are made of



Kerala abounds in such moments. Earthy as well as ethereal. Kerala, the famed land of infinite charm and infectious gaiety. Where myriad excitements await you. Come, share these moments. And cheer yourself in gay abandon. K.T.D.C. will be all grace and poise to welcome you. To look after you with love and care. In fine style, at K.T.D.C. Hotels.

Mascot Hotel:

Trivandrum-the best of the lot in the capital city.
Phone:68990

Bolghatty Palace:

Cochin-ideally located in a solitary island.
Phone:35003

Aranyanivas, Lake Palace and Periyar House:

All situated at Thekkady, renowned for its wildlife sanctuary. Phone 23, 24, 26

Hotel Samudra:

Overlooking the world famous Kovalam beach. Phone:3605

Guruvayoor Tourist Bungalow:

A middle class tourist home at the famous Guruvayoor pilgrim centre, with excellent facilities. Phone:6266

Garden House:

Amid the magnificient Malampuzha Gardens.
Phone:8217

K.T.D.C. also offers regular city sightseeing tours, conducted tours to Cape Comorin, Thekkady, Mysore, Bangalore, Velankanni and also boat cruises in Cochin backwaters.

For reservation in the Hotels, please contact the Hotel Managers, or the Central Reservation, K.T.D.C., P.B.No.46, Trivandrum 695 001
Phone:64261, 64705, 64379
Telex:884 336 KTDC IN

KERALA TOURISM DEVELOPMENT CORPORATION LTD.
P.B.No.46, Trivandrum 695 001
Phone: 64261 64705

PASDASA KTDC 908

Andhra Pradesh Beckons You

Since times immemorial, the Telugu people have been a race devoted to fine arts, excelling in sculpture, painting, literature and music.

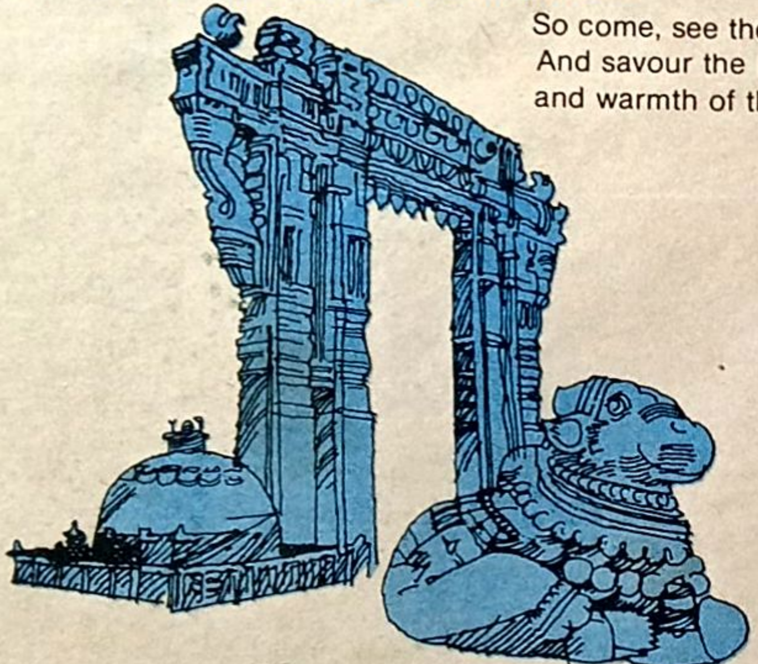
Come to Andhra Pradesh, the gateway to the sunny south. The land of infinite variety and charm.

Relive the grandeur of the art and architecture of the Satavahanas, Chalukyas, Kakatiyas and the Qutub Shahis.

VISIT

- **The historic Charminar and Golkonda fort**
- **Tombs of the legendary Qutub Shahis**
- **Buddhist Stupas at Amaravathi and Nagarjunakonda**
- **Monolithic Nandi at Lepakshi**
- **Ancient temples at Tirupathi, Simhachalam, Srisailam and Bhadrachalam**
- **The bewitching beaches of Visakhapatnam.**

So come, see the sights.
And savour the hospitality
and warmth of the people.



ASP/DIPR/834

DIPR, Andhra Pradesh

You'll sing in the sun,
Ride on the waves,
Talk to the wind,
Sail in the sky

At Hotel Oberoi Bogmalo Beach, the throbbing holiday centre of Goa

Hotel Oberoi Bogmalo Beach: It's everything you've ever expected from Goa.

A mellow sun shining down on ochre sands and a cool, turquoise sea, right at your door-step. Inviting you to frolic in it — on water scooters, windsurfers and waterskis. Even parasailing for the adventurous.

Exciting games: tennis, golf, volleyball. Or go for cycling tours in picturesque Goan villages. Tone up at our fully equipped Health Club.

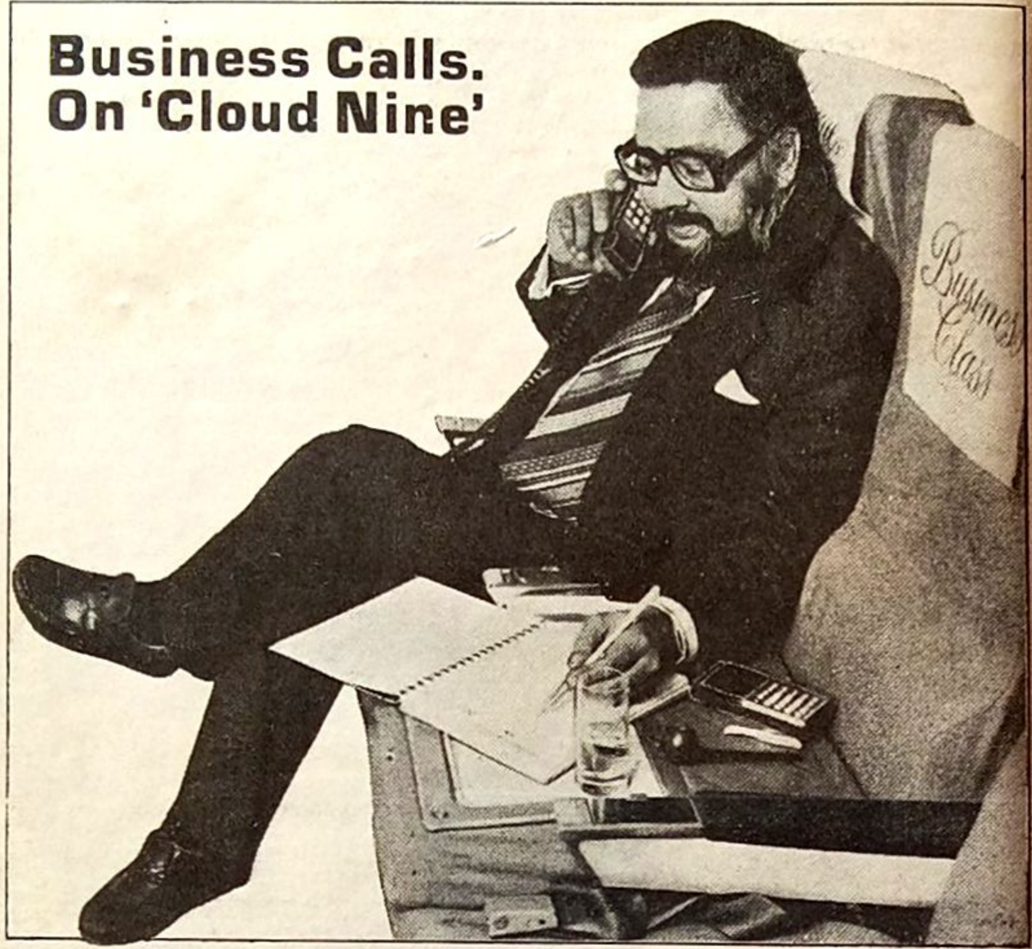
Taste the miracles of delectable Goan, Continental & Indian cuisine at moonlit beach barbeques — Dance to the music of our live band. Relax indoors with video films or in-house movies.

Come to Hotel Oberoi Bogmalo Beach. For fun filled Goan days you'll never forget.

It's the most enchanting way to experience Goa.

Hotel Oberoi Bogmalo Beach
A *Trade-wings* Ltd. Enterprise
Dabolim, Goa. Tel.: 2191. Tlx.: 0191-297 OBGA

Business Calls. On 'Cloud Nine'



Flying at an altitude of 30,000 ft, and a sudden thought to call someone on Mother Earth. Will you reach for a telephone? Yes. When you fly SAS— Business Class. For a marginal cost, we'll be pleased to connect you. You may like to fix an Appointment. Close a business deal. Or simply share your moments, with someone special.

Calling from 'Cloud Nine'. No more a flight of fancy.

SAS Business Class. Coming to your door step.

SAS
Business Class

PERCEP / SAS-1-84

Promoting Tourism

(Contd. from page 233)

India abroad by Indian travel agents. And Indian Institute of Public Opinion (IIPO) report shows that the need is for expenditure the range of Rs.300 million to be able to meet the projected 1990 figure! An ethos of warmth, a lifestyle of culture and a sense of history have to be built up in the promotional strategy. Stress needs to be laid on the "experience" of feasting, festivals, religions, wild life, shopping, climate and other aspects that make an integrated whole.

Adieu — And they came home

John Carr carefully unloaded the last roll of film from his camera. He closed his eyes and lay back against the aircraft seat, his mind a kaleidoscope of impressions. Amazing, he thought, how people in India seemed to live at once in several centuries. Bullock carts assumed pride of place on roads with video coaches! He cast his mind over "the pink city" — Jaipur, Udaipur, Agra and the Taj, the breathtaking Himalayas, Kashmir and the houseboats and recalled how roll after roll of film had been exhausted. How he wished he could have experienced life with an Indian family, how he wished he could learn about the intricate craftsmanship that went into the making of the beautiful brass & copper ware, how he wished .... he could return again!

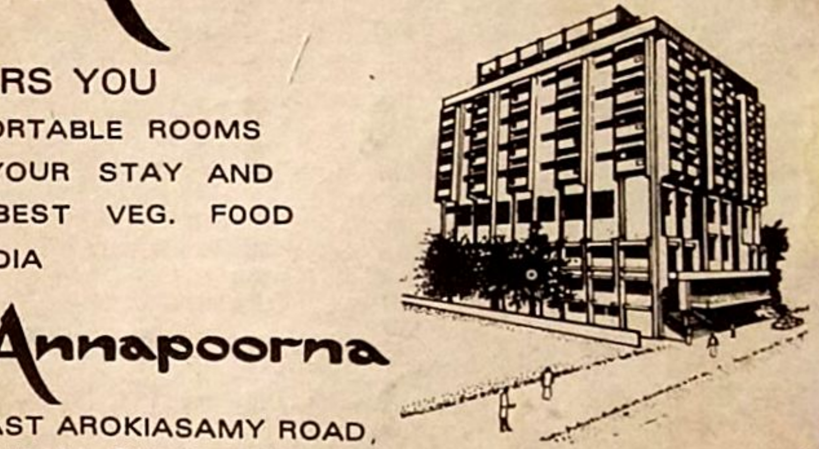
Amid the hustle and bustle of Howrah station, Calcutta, Mrs Dixit, oblivious of the confusion around her, happily surveyed her charges and reigned over the baggages, while Mr Dixit made last-minute arrangements. It had been a good trip, she mused, with all that shopping, the temples, the monuments, the festival in-between, the Bengali fare .... just the over-all experience of having been elsewhere, on holiday. *

COMING TO COIMBATORE
(S. INDIA)

SREE Annapoorna

OFFERS YOU
COMFORTABLE ROOMS
FOR YOUR STAY AND
THE BEST VEG. FOOD
IN INDIA

SREE Annapoorna



47, EAST AROKIASAMY ROAD,
R.S. PURAM, COIMBATORE 641 002,
TEL. 31013, 25225, TELEGRAM : 'POORNAM'
TELEX-0815-447/SAP.

CAA

WILDLIFE TOURISM

BY ZAFAR FUTEHALLY

Wildlife Tourism has been looked upon mainly in economic terms. After the Second World War when the European nations vacated their dominance over Africa one by one, they were afraid that the spectacular wildlife of that continent would rapidly erode if the Sanctuaries were mismanaged or overexploited. Hence the famous Arusha Conference in September 1961, which gave a clarion call to the saving of Africa's natural resources, on the basis of not merely ethical and aesthetic grounds, but primarily for economics and ecology. The Conference was planned because it was felt that "the accelerated rate of destruction of wild fauna and flora and habitat in Africa — without adequate regard to its value as a continuing economic and cultural resource — was the most urgent conservation problem of the present time." The fear of the Europeans was fortunately misplaced, for when Tanzania won her Independence, there was only one Park, Serengeti; but 12 years later, it had nine.

Tourism to National Parks remains Africa's largest foreign exchange earner. In India too, the Conservation lobby has to direct its appeal very largely to what our Sanctuaries can earn in the way of foreign exchange. Visitation is increasing, and care will have to be taken to see that our fragile environment is not trampled too hard by human feet, and by the exploitation of resources (firewood for example), which human presence always entails. Kashmir had 600,000 visitors last year, and pollution of the Dal Lake, and the scars on her hillside are definite indicators of over use. Put in a nutshell, tourism, unless handled imaginatively, causes air and water pollution, sanitary problems and epidemics, and is a danger not only to the physical, but to the social and cultural environment as well. Handled with foresight and expertise, however, tourism, both national and international, can be a great asset in many ways.

But it is the other side of tourism about which I wish to write, the side which has not been given the attention and the planning it deserves.

For city-bred young people, a stay in a Sanctuary or national park, can be an experience which cannot be equalled. Indeed, in an increasingly urban environment, a family visit to such an area can lay the groundwork for a useful and realistic facet of education — a knowledge of nature, and how each species functions and interacts with the others.

In order to get the most out of a visit to any Sanctuary, it is wise to find out something about it. What sort of forest is it, deciduous, evergreen, scrub, rain forest? Which are the principal trees you would expect to see there, which are the principal animals, and which birds? A little reading up about the habits of some of the principal animals, would help a great deal, by making it easier to understand and remember the animals' movements. Apart from this, it is a good idea to "pump" the local forest guards for as much information. They are nearly always knowledgeable, but not always very articulate; but careful and intelligent questions will draw out a wealth of interesting information.

We need to make another kind of mental

Continued on page 244

To Canada.
Without a change.

The only airline with direct flights to Montreal.

Every Saturday, fly straight to Montreal. From Bombay or Delhi. No change of aircraft. No repeated immigration formalities.

You'll reach in time to take convenient connections to other major cities in Canada — the same day.

Throughout your journey, our sari-clad hostesses will care for you. Offer you a choice of Indian vegetarian, non-vegetarian and Continental cuisine. You can select one of several channels of specially compiled Indian or Western music for your inflight entertainment; and enjoy an English or Hindi movie.

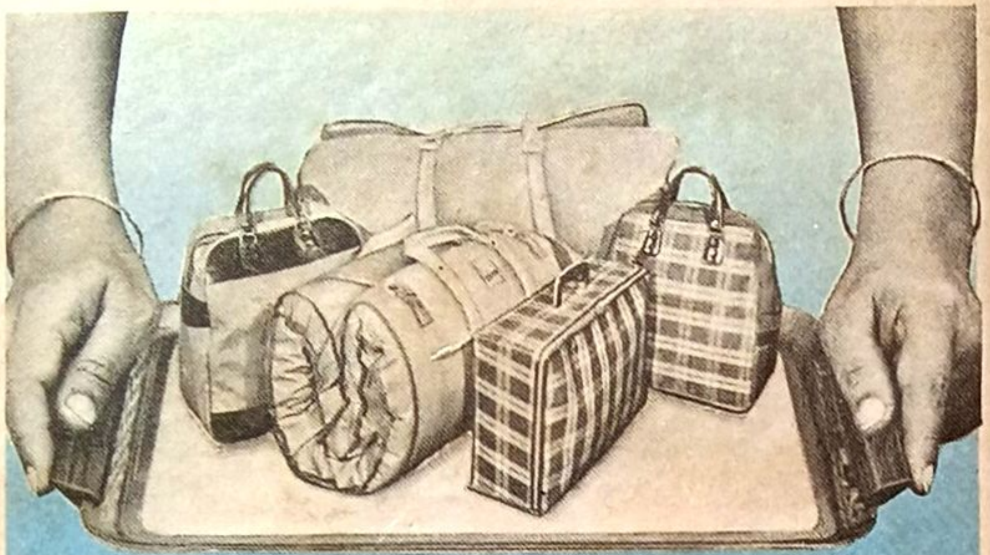
What's more you can avail of attractive low excursion fares on this route.

After all nobody understands you like we do.

For details, contact your Travel Agent or Air-India.

एअर-इंडिया
AIR-INDIA
Indian hospitality across five continents

HTB-AIR-9692 R



A TRIBUTE TO TRAVELLERS

weather-proof, easy to carry companions

Duckback®

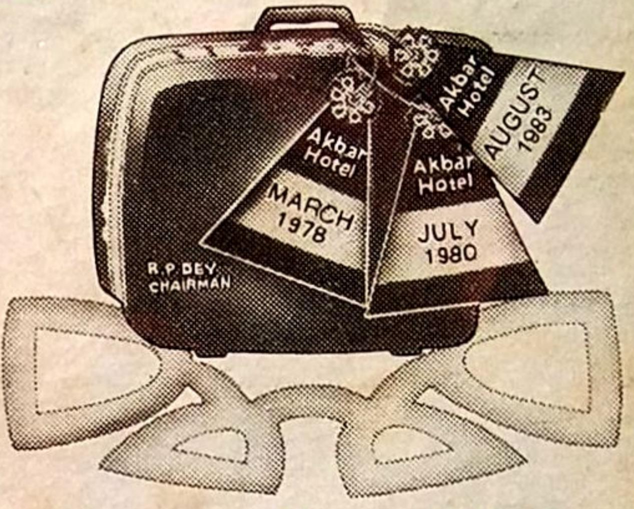
TRAVEL GOODS

BENGAL WATERPROOF LTD.
CALCUTTA • BOMBAY • MADRAS

Duckback® Means Quality

naa. 8422

One thing some people will never change is their hotel in Delhi.



It's got to be Akbar

As soon as you step into Akbar a special relationship begins. There's friendliness all around and you immediately respond to it. You stay at Akbar once and you wouldn't want to stay anywhere else. An intense loyalty grows with each visit. Mellowing into a sense of belonging. It's like your very own hotel.

And at every point you get more for your money than anywhere else. Whether it's stay, conferences, banquets or other facilities. Come let us give you the best at Madhuban—the 24-hour Coffee Shop; Sheesh Mahal—the speciality restaurant offering Indian, Mughlai and Continental cuisine; Panch Mahal—the Indian vegetarian restaurant offering delicious 'Thali' meals; and Salim Bar. There is our rippling, inviting swimming pool set amidst lush gardens. And for the beautiful touch—Noor Jehan, the beauty parlour. Also, within the premises, is the convenience of a travel counter.

For conventions and banquets—magnificent halls with modern amenities that'll make you want to come together more often. Make it in groups ranging from 25 to 200 and feel absolutely at home.

Akbar Hotel

Come once and it becomes a part of you.

Chanakyapuri, New Delhi - 110021, Phones: 673251, 370251, Cable: AKBOTEL, Telex: 031-2863

For information and reservation please contact:

Ashok Reservation Service:

New Delhi:	Tel: 350070	Telex: 031-2468, Cable: CENTRES
Bombay:	Tel: 233343, 232722	Telex: 011-4171, Cable: TOURISM
Madras:	Tel: 812757, 88520	Telex: 041-7262, Cable: TOURISM
Calcutta:	Tel: 440901, 440922	Telex: 021-2307, Cable: TOURISM

The Ashok Group

India Tourism Development Corporation

(Contd. from page 240)

preparation as well. In our everyday urban life, we are used to the idea of trying to draw attention to ourselves — our clothes are "eye-catching", our voices we deliberately raise above the din, and our gestures and movements are always "attention-catching". In the forest, we must try to do the opposite and to keep the lowest "profile" possible, for remember that, in this particular world, it is you who are the intruder.

Dress in khaki, brown, or a dull green, for the idea to merge into the forest. Never wear bright colours, and above all, avoid all white clothes, they show up a long way off, even between the trees. If you must speak, speak in a very low, soft, monotone, which can only be heard by the person next to you; but the best thing is not to speak at all. One only needs to speak in a forest in order to point out something, and this can really be done without even a whisper. In the silence of a jungle, the click of a camera shutter can be startling. This silence is the background against which the alarm call of a cheetal, the chattering of monkeys, or the twitter of birds can be picked up and interpreted by animals a long way away. The best way to move in the jungle is on elephant back, because the sight and sound of an elephant is familiar to all the animals and one hopes that most of them cannot clearly discern the people perched on its back. Finally, as long as you are in the jungle, whether on elephant back or in a jeep, be sure to obey the forest guards' instructions implicitly. Do not attempt to bully him into taking you where he does not wish you to go.

If you are lucky, you may see the big, exciting animals like elephants, bison, nilgai, deer, or panther. You might even see some interesting action, like a herd of elephants, babies and all, having a bathe in a pool, and you might observe their courtesy and helpfulness to each other as they enter and leave the pool. Or you might see a herd of cheetal lift their heads as they smell danger. Indeed, you will observe how very much the lives of animals are governed by the sense of smell. They use smell to mark their territories, to communicate with each other, to find food, and to avoid danger. Where we strain our eyes to look for things, many animals raise their noses to smell for them.

Talking about cheetal, studies of this deer, regarded as the most beautiful in the world, indicate that the social instinct of the herd is to preserve its most important component, which is an adult male cheetal who is for the time being the dominant one. When a herd suddenly senses alarm at the sight of a tiger, panther, or a pack of wild dogs, it is the largest male of the herd which is protected, and this creature, by his own manoeuvring, and with the willing co-operation of the herd, finds itself in a safe spot, surrounded by its companions, and momentarily out of danger.

Do not be disappointed if you happen to miss the big sights of a Sanctuary. There are plenty of small, but important, sights from which you can learn a lot, and which can be thrilling. Wherever the ground is soft, muddy or sandy, you may find tracks and pug marks. Some sanctuaries keep a chart of the pug marks of the Cat Family, and of jackals, hyenas, and others; and with this help, it is fun trying to "read" the pug marks, however inexpertly. A good forest ranger will be able to interpret for you, not only the species, but the size, perhaps the sex, of the animal, and roughly, the time when it passed that way. He will also be able to identify the droppings of the various animals. He might even, by poking with a stick, be able to show you signs of the menu of the animal's last meal.

The best way to enjoy and to learn from the National Parks, is not to take a quick round and rush out. The very early mornings and late afternoons, is the right time to be in the forest, and in order to get something from the experience, one should spend long stretches of time in the same area, visiting it again and again, at different times of the year, watching the changes not only in the vegetation, but in the behaviour of the animals as well. *